



grafton |
Gi Group Holding

IT salary report

2024

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Scope of the report

This year's report was created primarily for:



Managers of IT and HR operational departments



Leaders of business units and IT teams,



Investors and organizations planning to expand,



IT specialists

| Sources

Demographic and market data comes from the Central Statistical Office (GUS) and the National Bank.

The presented data concerning students doesn't cover all computer science students (according to ISCED-F 2013), but rather only actual IT faculties selected (by hand) from the GUS data. Their exact list is available at <https://pl.grafton.com/en/it-salary-report-2024>

Data concerning the demand for IT specialists, offered work modes and forms of employment was compiled from Polish job portals used by the IT industry.

| Salary benchmark

The salary benchmark has been created by Grafton Recruitment experts. The salary range have been presented in gross PLN monthly amounts. The values presented by research encompassed factual market data calculated on the basis of:

- offers presented to the candidates by Grafton Recruitment clients.
- current salaries of candidates participating in processes led by Grafton Recruitment,
- analyses of salaries offered by IT companies currently working with Grafton Recruitment.

All data concerns the period of Q4 2023 - Q1 2024. Moreover, an NO indicator has been calculated for all positions, indicating the most common salary level on a national scale.



**Agata
Jemiota**

Branch Manager

grafton
GI Group Holding

The boom is over, the situation is stabilizing

The current economic situation and new trends have led to major changes taking place in the IT labor market. The professionals fought over in 2022, who were changing jobs eagerly and frequently seeking better financial terms, are now much more cautious toward new proposals. One can see that the formerly undervalued „job stability” has become a key priority. This marks an important change for the industry that only half a year ago offered euro or dollar-paying jobs to specialists just to fill out the shortages of expert staff.

While the IT sector is still struggling with a large demand for experienced specialists, its scale has notably decreased since H2 2022. One of the key areas in which the changes are most visible is software development. Due to cost-cutting and restructuring, many companies (both in Poland and abroad) have shrunk their development and tester teams, and limited or entirely stopped new recruitments for such positions. One can observe the effects of the currently ongoing recruitment processes: fewer available vacancies have meant that the ability to reach the candidates (who receive fewer job offers now) increased greatly. We have also observed a trend of moving from B2B contracts to regular Employment Agreements, which is likely due to an increased sense of stability provided by the latter.

While in the case of the programmers and testers, there is a certain decrease in market demand, when it comes to security, big data, cloud computing, and artificial intelligence specialists the interest is increasing. We expect these areas to dominate the labor market in the years 2024-2025 and to grow the quickest. As for other positions, the earnings won't be growing quite as dynamically as in the past few years. If the current trend keeps up, the earnings of software development-related roles (which used to grow by 10-20% each year on average) are likely to stabilize at approximately 5% annual growth.

Looking at the changes taking place in the global IT market, it's not easy to stay optimistic. At the end of last year, international programming businesses were informed about staff reductions planned for H1 2024 and withdrawing from certain investments.

In Poland, the IT market seemed a little more stable, especially at the beginning of 2023 when many companies retained several „benched” specialists awaiting new projects expected to arrive soon, as the economic situation improves. However, the reality proved different and the factual trends, opposite to the expectations, have led to numerous expectations.

IT sector in Poland

Condition of the IT sector

For years, the IT industry resembled a rolling train. The ongoing technological progress has stimulated the ever-increasing demand for specialists, and we paid close attention to a growing employment gap in this sector.

2022 and 2023 verified everyone's assumption. While the technological gallop is still unceasing, companies have become more cautious when it comes to employment. This change has led to great uncertainty, which has been present in the industry for the past two years.

According to layoffs.fyi, in 2022 165,269 people have been fired from 1,064 tech companies globally (according to revised data), which raised a media storm. One could say the news broke worldwide. 2023 proved similarly difficult to the IT sector and the number of terminations equaled 263,180 (in 1,191 companies).

However, the beginning of 2024 seems optimistic. As of 25.03.2024, the number of terminations amounted to 50,841 (in 219 companies), marking the lowest value for the comparable period in the past two years. Could one assume that the worst time is over and the industry is about to move toward stability? We'll see soon.

IT industry: from a rolling train to cautious stabilization

A WAVE OF TERMINATIONS



| | |
|------|---------------------------------------------------|
| 2022 | 165,269 employees in 1,064 companies |
| 2023 | 263,180 employees in 1,191 companies |
| 2024 | 74,672 employees in 259 companies |

Source: Data from <https://layoffs.fyi>, access: 19.04.2024



**Lucjan
Giza**

Senior Software Manager



Poland's IT market as compared to the rest of the world

In the global IT landscape, Poland stands out for its strong ties to Western markets. Many multinational corporations have established branches or dedicated R&D departments in Poland, leveraging local expertise for the development and maintenance of their solutions. Polish IT firms are known for high standards, largely driven by competitive labor markets and the cross-pollination of practices as workers transition between companies.

During recent global economic downturns, Poland's IT sector has faced unique challenges and opportunities. While international cost-cutting and restructuring can threaten jobs globally, Poland often benefits from its lower labor costs and high skill levels, attracting inward investment and project relocation. Conversely, Polish companies heavily reliant on project-based work with foreign institutions, especially software houses, may find themselves more exposed to project cancellations and a scarcity of new contracts in a recession-hit market.

Emerging technologies like AI, blockchain, and the Internet of Things are shaping Poland's IT sector, fostering innovation and offering resilience against economic fluctuations. This tech advancement solidifies Poland's position as a cost-effective, yet innovative IT hub, harmonizing cost-quality considerations and cultural alignment with business practices, vital for offshoring and nearshoring ventures.



**Stanisław
Drosio**

Senior R&D Manager

Hyland™

Polish IT sector remains competitive to other global markets

When compared to other European locations, the Polish IT market remains highly attractive for investors - both new ones and those already present in our market. This positive appraisal comes from several elements: lower costs, extensive experience of Polish specialists with new technologies and institutional investment support from both local and central authorities. Euro rarely being used as the settlement currency forms another important factor. These factors are notably increasing Poland's competitiveness as a nearshoring and offshoring destination.

It bears pointing out two specific markets - Western Europe and India. Regarding the former, the growing investment and hiring costs are making it steadily less competitive for potential investors. On the other hand, India, with its similar tax and pension regimes, offers an interesting alternative. However, despite Indian project work forming a backbone for US and Western European businesses, they are also becoming increasingly less competitive.

In summary, despite the economic downturn, Poland's IT market remains competitive and attractive for qualified IT specialists, who are in high supply here. Poland has many advantages over other locations.



Radostaw Pituch

Manager

Head of BSS & Tech Investments
Direct Investments Department



PAIH support for the IT investments in Poland

The enterprises carried out by IT and Tech companies remain at the top of active modern business services projects of the Agency's investment portfolio. They predominate due to both the sheer number of investments and the number of newly created vacancies. Among the current PAIH investments, as many as 24 projects concern the IT industry.

According to our observations, the interest in IT and Tech industries in Poland isn't weakening at all. Our country remains an attractive investment market due to the availability of rather highly qualified staff and resources enabling implementation of even the most demanding software engineering, cloud computing or data science investments and well-developed infrastructure, especially when compared to the rest of the CEE region.

The last few years have brought increased investments in the area of Information and Communication Technologies, as well as Big Tech enterprises such as Google or Microsoft. In the last year alone, the Agency has been supporting the projects of such brands as Visa, Volvo and Honeywell.

PAIH, working through the Department of Investments, is actively seeking new investors through participation in trade events, organizing trade missions and meetings for business and public representatives. An important tool to entice Tech businesses to invest in Poland is the grant programs. The Agency, acting on behalf of the Ministry of Development and Technology, is the operator of a governmental grant aiming to create new vacancies for both the large industrial projects and the new technologies sector. In 2023, the program saw notable changes, such as increased maximum limits for support of R&D operations, reflecting the market trends of increasing investments highly reliant on specialized knowledge. The grant program is undoubtedly one of the Agency's major advantages in talks with potential investors.



Demand for IT roles

The wave of terminations and a new deal in the IT industry have shifted the reference point of our analysis from Q1 2019 to Q1 2023.

The recent wave of terminations in the IT industry has undoubtedly changed it. The years 2021 and 2022 brought an incredible rise in demand for IT specialists exceeding even the boom of early pandemic period. Taking these sudden changes into account, which we believe have meant a new deal for the IT industry, we chose Q1 2023 as the new reference point to better analyze the demand for IT specialists, acknowledging the new circumstances.

The benchmark referred to in our research consists of all job offers, regardless of the industry of the type of position being analyzed. In the period of Q1 2023 - Q1 2024 the demand for IT specialists deviated only slightly from this benchmark. Across 2023, we have observed a decrease of up to 4%, followed by a return to the levels of Q1 2023 (our new reference point) in Q1 2024.

Demand for IT roles
data indexed against Q1 2023



Data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods. For the purposes of overall nationwide analysis, the data has been deduplicated. n = 130,058 (the offers for the same position issued by the same company in the same period are counted as a single offer, even if they were published separately for each province).

Demand for IT roles

The analysis of demand for various IT roles in 2021-2022 shows a strong growth trend for the positions related to artificial intelligence (AI) and machine learning. These areas are definitely above-average compared to other IT job offers, reflecting the great interest in artificial intelligence among the various branches of the economy and spheres of life.

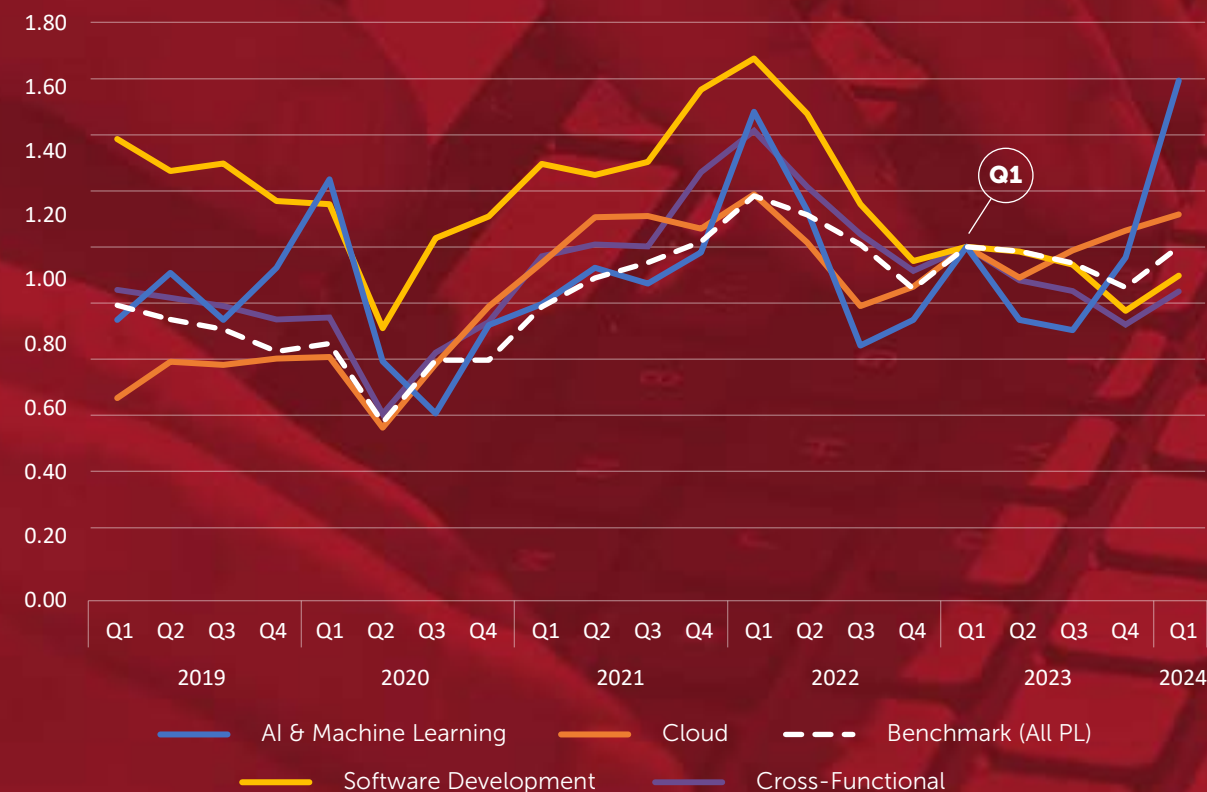
When compared to Q3 2023, when the demand for AI/ML-related roles was still below average, Q4 2024 marked an impressive increase of 59%. This is a clear signal that the businesses are investing in this area.

Cloud technologies are also highly popular. The demand for these roles is currently 12% higher than the reference point of Q1 2023, indicating constant growth and the importance of cloud specialists for modern business.

The situation is a little different for software development positions. In this area, one could observe a falling demand since Q2 2022. As of writing, it is 10% lower than in Q1 2023.

Cross-Functional roles enjoyed the lowest demand among all analyzed groups. It was 16% below the average for the entirety of IT roles.

Demand for selected IT roles
data indexed against Q1 2023



Data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The specific analyzed groups n = 74,579. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods. For the purposes of overall nationwide analysis, the data has been deduplicated. n = 130,058 (the offers for the same position issued by the same company in the same period are counted as a single offer, even if they were published separately for each province).



Julia
Łamacz

IT Recruitment Project Manager

grafton
Gi Group Holding

” Is the employee market over for the IT sector?

Last year has brought notable changes for the IT sector, in terms of both available vacancies but also the approach to ongoing recruitment projects. While one could hazard saying that the employee market is coming to an end for the industry, it bears asking whether that's really true.

In the past few years, the demand for software roles and the need to „compete for experienced candidates” have led to record quick closing of the recruitment processes - on average, the entire process from applying to presenting the candidate with an offer took between 5 and 10 workdays. Currently, according to our analyses and candidate testimonies, they last twice as long and the candidates might have to wait several weeks to receive feedback.

This change is likely due to a wave of terminations in the industry, which provided the recruiters with a much broader candidate pool - including some very experienced workers. Furthermore, employers largely don't have to resort to direct search and can instead acquire candidates by publishing offers on job portals. Therefore, a good selection of applications is enough and the recruiters are committing more time to it.

However, there still exist professional profiles in very high demand, such as AI, Cloud Computing, Machine Learning, Big Data or Cybersecurity, due to the increased need to protect the processed data. With this in mind, one could say we're not as much dealing with the end of a candidate's market for the IT industry and more seeing the demand shift to other areas and roles that will keep strongly developing due to constant technological progress.



**Marta
Waligórska**

EMEA Director Talent Acquisition

Sabre

Specialization and experience determine the demand for IT positions

Poland's IT market is undergoing a major transformation, impacting both employment structures in particular companies and the sector's overall health. On one hand, new opportunities present themselves, on the other hand, the industry is also facing new challenges.

On the IT job market, 2023 has brought a notable slowdown. The businesses took a more cautious approach to recruitment, primarily seeking employees with Regular and Senior experience levels, while greatly limiting the number of offers for junior positions. However, the exact dynamics of demand have differed based on one's specialization. The number of offers targeting artificial intelligence experts has doubled. As for senior full-stack developers, the number of offers increased by almost 30% and for embedded developers - by 14%. The number of SAP and DevOps-related positions has increased as well. At the same time, the demand for mobile and IT support specialists has decreased by approximately 30%, partially due to the automation of tasks implemented by these positions.

This year, we can expect the implementation of AI tools to further expand, leading to a high demand for workers specializing in this area. Most likely, the number of positions for cloud technologies, DevOps and Big Data specialists will increase as well. Similarly to earlier times, these will primarily target experienced Mid and Senior employees able to quickly get up to speed with new projects, which is of utmost importance in such a dynamic market environment.

When it comes to employee expectations, I think the flexibility of remote work will remain crucial. Given the ever-increasing concerns of some specialists about excessive automation of the recruitment processes, partner relations with the recruiters will keep growing in importance. The HR departments will have to find a sweet spot between optimizing their operations and the individual approach to candidates.

Academic potential

The percentage of IT students in all of Poland has increased by 5.1% since last year, far exceeding the growth rate of the total number of students (+0.4%).

The largest growth took place in Łódź (+21.5%), Podlasie (+18.7%) and Lublin (+12%) provinces. Only two provinces - Lubusz and Lower Silesia - saw a decrease in the number of students.

Despite the difficulties faced by the IT market, interest in computer science faculties remains unwavering. Businesses are constantly investing in technological advancement and specialists are being sought in many areas.



*The list of faculties selected by Grafton Recruitment is available under the following address:
<https://pl.grafton.com/en/it-salary-report-2024>

Map - Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Wioletta Klimczak

CEO & Co-Founder
IT Girls Foundation

IT:GIRLS

It's worth supporting an interest in technology from the earliest years

Shaping the interest in technical studies begins at the earliest stages of education. It should focus on demystifying technology and promoting innovation as a part of everyday life.

Introducing programming, logical thought and basic programming terms early through play and practical experiments can successfully stimulate interest in technology. It's important to adjust these activities to the age and cognitive capabilities of the children. The schools should be offering workshops, robotics clubs and additional lessons on new technologies, all helping the youth discover the world of IT.

Another important aspect is overcoming the gender stereotypes related to the IT industry. Promoting the examples of successful women in the tech industry, and organizing meetings with mentors and role models will help increase the interest of girls in technology and programming. Early education is crucial here, showing that technology is for everyone, regardless of their gender.

Educational programs and initiatives enticing to explore the world of programming and technology should be supported by educational institutions, NGOs and the private sector. Their cooperation could enable building a strong foundation for future IT specialists, as well as increasing the number of women working in the industry.

Actions taken at an early stage of education could have a long-term impact on shaping the future IT job market, supporting greater diversity and innovation. Such an approach will allow shaping a generation that not only has solid technological foundations but also is open to continuous learning and can adapt to the quickly changing world of technology.



Inflation

Over the past two months, the inflation has reached the Central Bank's goal of 2.5%, with a 1% deviation.

The last readout has shown 2%, indicating an inflation rate of 2.8% in Q1 of the year. This marks a better result than expected by the Central Bank's forecast of 3.2%, which assumed no protective action being taken by the government. It bears pointing out that these last readouts mark a return to the inflation goal for the first time since April 2021.

At the same time, one should take into account the fact that VAT for food products is being reinstated in April while de-freezing energy prices is planned for July. These changes could have an impact on the inflation levels in the upcoming months.

Inflation in Poland

% against the same month last year

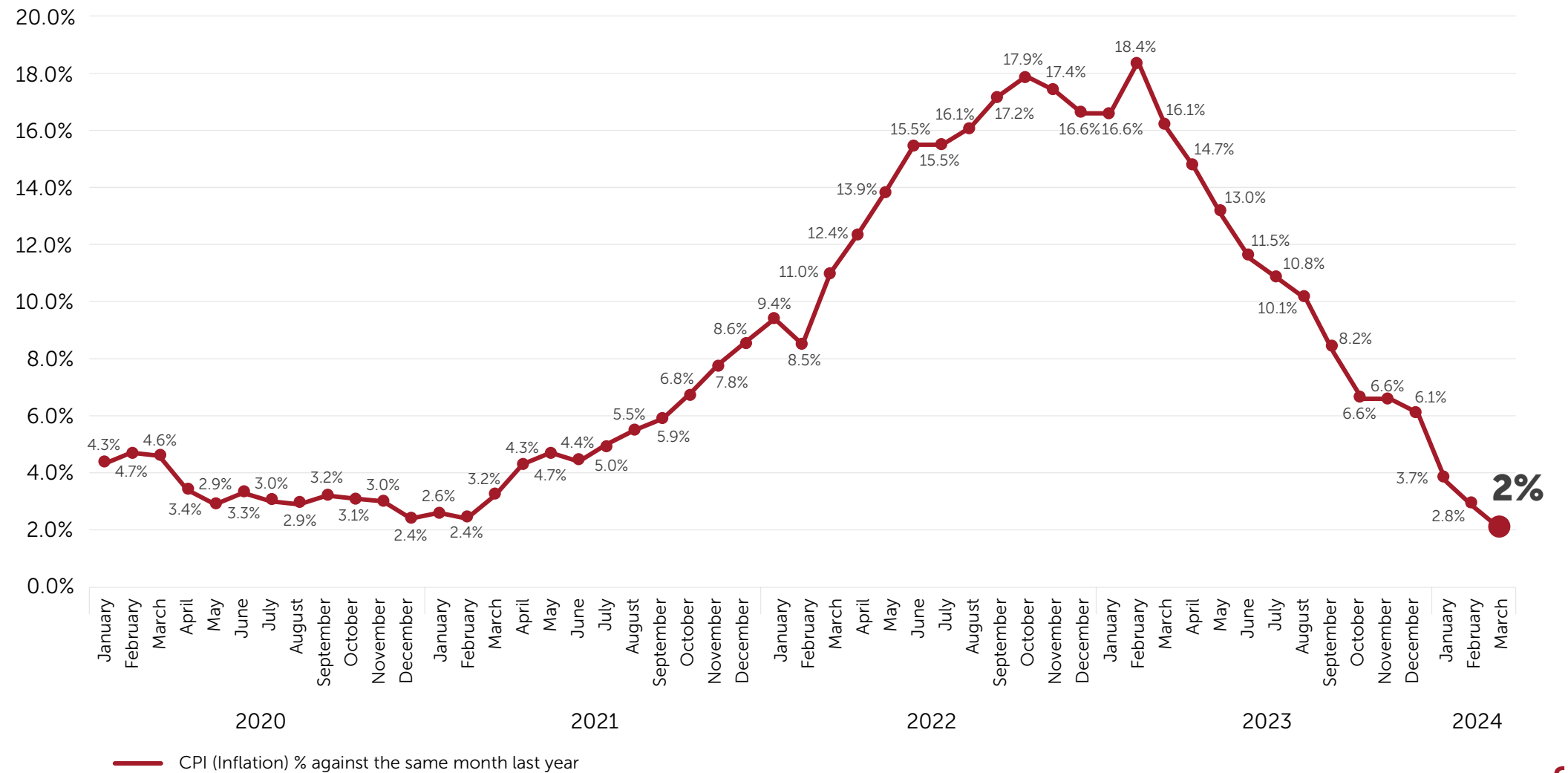


Chart - Source: GUS data Consumer goods and services price indicators (inflation).



Inflation, salaries and demand

The rising inflation has not gone unnoticed by the labor market. Just like their colleagues from other industries, the IT workers have demanded pay raises - and their employers reacted. The salaries have risen along with the inflation, though not quite as dynamically.

By the end of 2023, the inflation began falling. Yet, the data on salaries indicated continued growth. In the IT industry, where specialists have long been enjoying above-average earnings (PLN 8408.79, according to GUS data for March) we noticed some changes.

IT employers have been approaching recruitment more cautiously and were less likely to fulfill candidate expectations concerning wages. The junior positions are especially prone to offers with pay below expectations. Employees with rare skills and extensive experience are still valued highly.

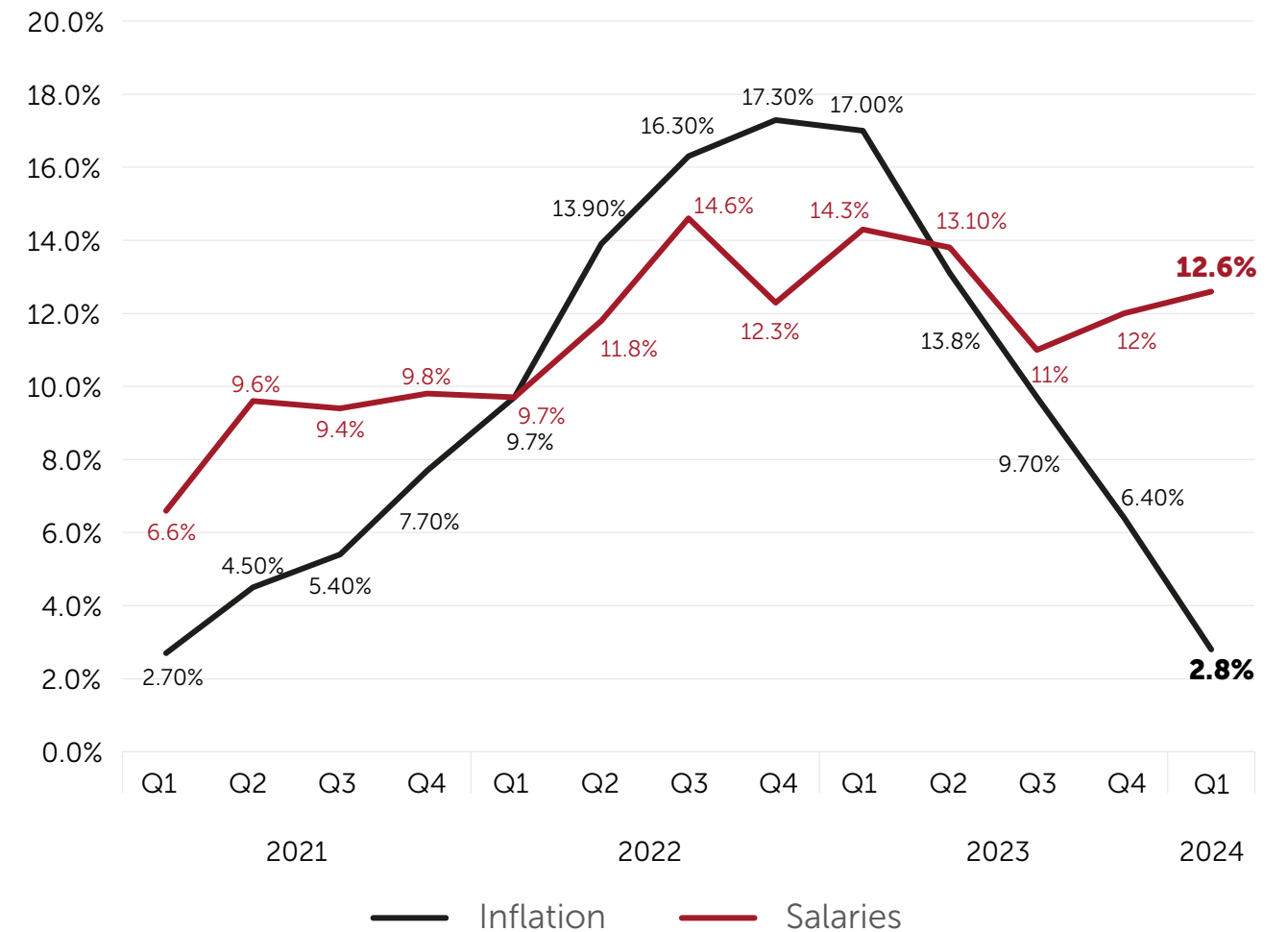
This year's salary report has shown a the largest year-on-year downward shift since 2018. The largest pay raises took place in the spheres of Data and Cloud Development. Conversely, SAP and project management roles had seen the smallest increases.

The IT market is at a crossroads. On one hand, the demand for specialists and their pay remains high. On the other hand, the employees growing increasingly cautious and the slowing down of salary increases might cause concerns among the candidates. Time will tell whether this year's trend will persist, or the market will return to a more rapid pace of pay rises.

PLN 8408.79

the average salary increase in the industrial sector in March 2024, according to GUS data.

Salary vs Inflation



Source: GUS, NBP (inflation report).

Trends in the IT sector



Forms of employment

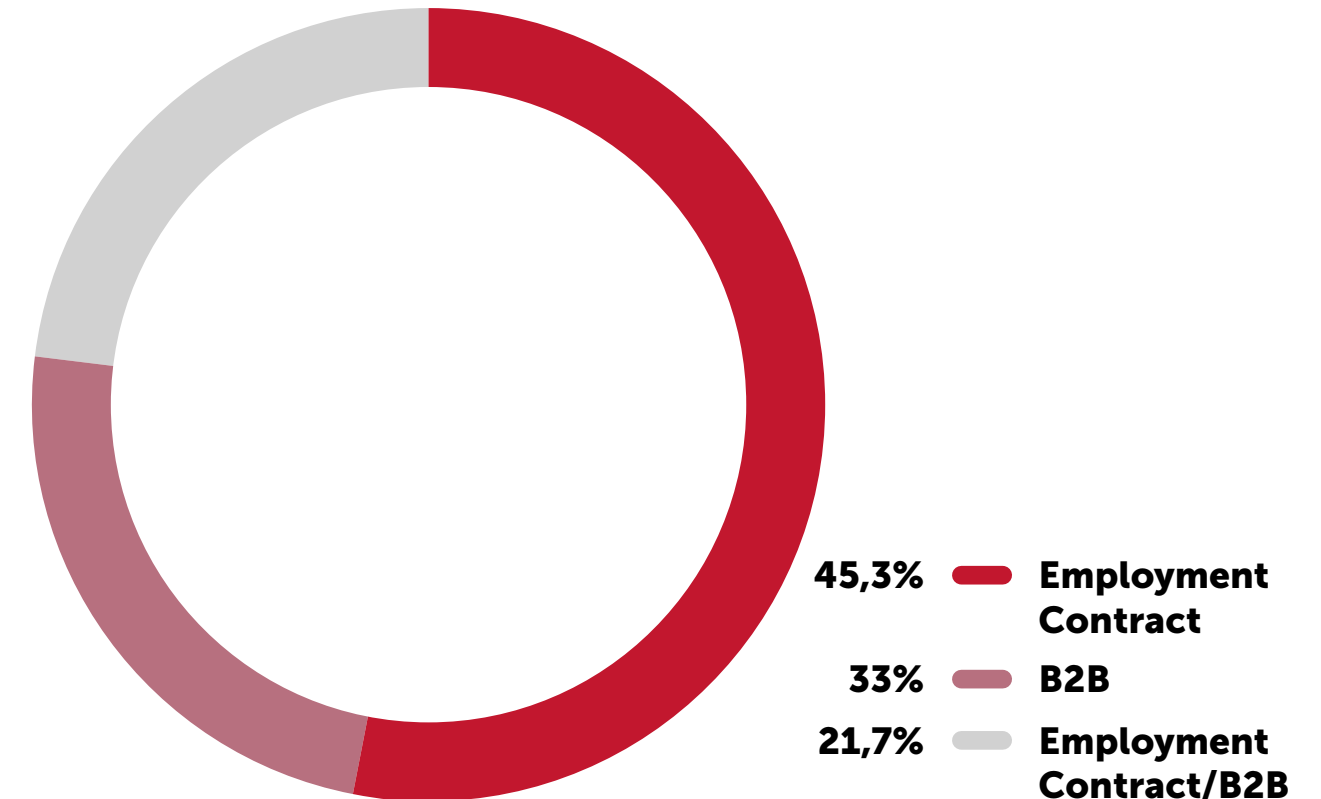
Job offer analysis for April 2024 shows that employment agreements are currently the most commonly offered form of employment in the IT industry. The uncertainty in the job market may be nudging employers towards offering employment agreements to attract and retain the best employees. In the current circumstances, many consider the stability and certainty of employment more important than the flexibility and independence of B2B contracts, even though that form of employment remains quite popular. Among the analyzed offers, 33% of advertisements (on the national scale) proposed B2B contracts.

The popularity of B2B contracts differs between regions. This form of employment predominates in the Wrocław market, where over 41% of offers assume B2B contracts (exceeding offers of Employment Contracts by 10%). Katowice is another city where employers seem to prefer B2B contracts, however, the difference with Employment Agreement offers was slight (approx. 1%). In Cracow and Tri-City, Employment Agreements are the preferred option (at 55.9% and 53%, respectively), while B2B forms only 21.6% and 27.8% of job offers in these locations, respectively.

While Employment Agreements predominate in the job offers, the market is still offering the candidates a wide selection of possibilities. Depending on individual preferences and needs, they can choose between the stability of Employment Agreements and the flexibility of B2B contracts.

Employment Agreements predominate, but B2B remains popular.

UoP vs. B2B



Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).



**Magdalena
Chodyniecka**

Senior HR Manager



Are the candidate preferences toward forms of employment changing?

One of our crucial values at OPITZ CONSULTING Polska is transparency, which is why we inform the candidates about offered contract types and pay ranges at an early stage of recruitment. The preferred type of contract is also always the topic of initial recruitment talks. We are very focused on precisely determining candidate expectations, especially for the B2B contracts whose terms can differ greatly between various companies.

Each of the available forms of employment has both its proponents and detractors, both motivated by personal and market factors alike. Undoubtedly, the specific elements of each form of employment will differ in importance based on the personal situation of the candidates. Those valuing a sense of security, stability of employment and social security contributions generally prefer Employment Agreements, which protect employee rights and provide several social security contributions. For those focusing primarily on independence and flexibility in work, B2B contracts might prove a more attractive solution even despite a lack of paid holidays and the full responsibility for business accounts.

Recently, market factors have gained increased importance in choosing the form of employment. The tense geopolitical situation, technological development and dynamic changes in the workplace are motivating an increasing number of candidates to reconsider the advantages and disadvantages of the various forms of employment. Analyzing the talks with people applying for work at our company, or even merely browsing available jobs can lead to a conclusion that the Employment Agreements are back in fashion. However, this certainly doesn't mark the end of B2B contracts in the IT industry. Nevertheless, the growing interest in more traditional forms of employment reflects the greater sense of security in these uncertain times.



**Stanisław
Drosio**

Senior R&D Manager

Hyland™

Are employment preferences in the IT industry changing?

When talking about the preferred forms of employment in the IT sector, the best descriptor would undoubtedly be „it depends“. The developers and people tasked with creating application code still tend to prefer other forms of employment than the Employment Agreement. However, we have seen this tendency shift somewhat, with fewer Employment Agreement-only offers being rejected.

In my opinion, much depends on the individual situation of the candidate applying for a given position. It's easier to take the risk of a different form of employment other than an Employment Agreement when someone in a given family or relationship already enjoys a stable form of employment. Otherwise - especially given the current market conditions - security is more important. It bears remembering that Poland still offers relatively favorable terms for calculating tax-deductible expenses, especially for programmers. This helps retain the attractiveness of Employment Agreements despite their higher taxation and social security payments - especially given that they provide the aforementioned security of employment.



Remote work or return to offices for the IT industry?

Lately, we have been hearing about a „return to office” in both Polish and global job markets. Some businesses are more cautious in their replacement of fully remote work with the hybrid model, while others make a sudden change.

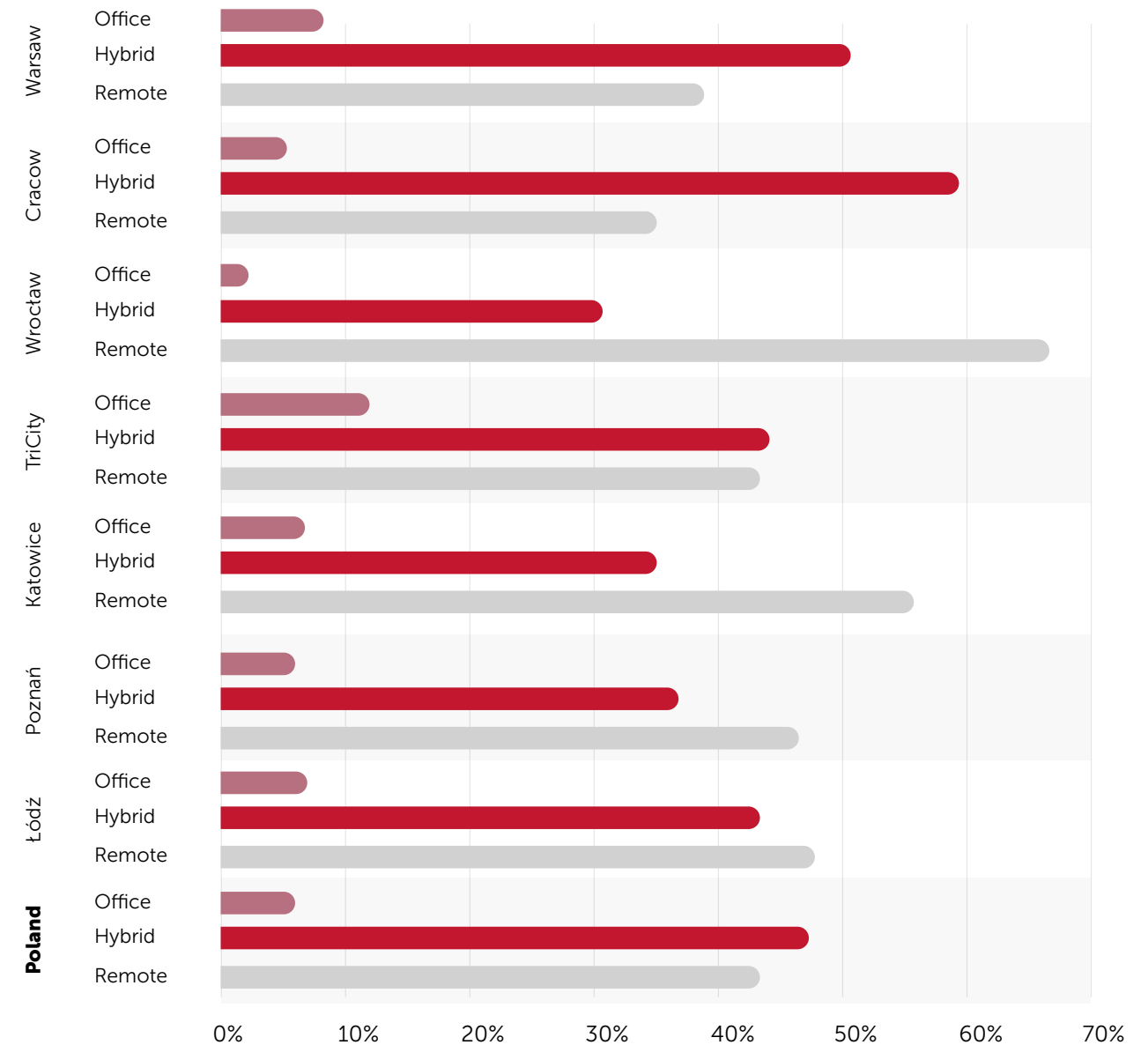
However, it bears mentioning that despite the numerous claims of the remote work era coming to an end, the data shows no sudden, radical change in this direction. While the hybrid model is still the most popular solution in the IT industry, fully remote work is following closely. Only 7.8% of the IT job offers require office presence on a daily basis. The largest number of such offers concerned Tri-City, Warsaw and Łódź.

The past few years have shown that in many cases remote work can be fully effective. Moreover, many businesses have noticed increased productivity of their remote workers, enticing them to retain the current model, especially if the local market lacks specialists with select competences.

The analysis of current IT job offers still suggests that remote work offers predominate in Wrocław (at 66% of recruitments for the IT sector sticking with this formula), followed closely by Poznań and Katowice. On the other hand, Cracow has had the lowest percentage of remote work offers.

In summary, remote work is still enjoying high popularity but the hybrid model is currently preferred. One can expect that in the future, the IT industry will lean even harder toward hybrid work, merging aspects of remote and stationary modes.

Remote work, hybrid and office work



Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).



**Joanna
Pokorska**

Senior Talent Acquisition Partner

 **SmartRecruiters**

New policy - welcome back to the office!

For some time, I have noticed an increased number of candidates in the IT sector who named the need to move from a fully remote model to a hybrid model in their current workplace. However, it bears remembering that the decision to seek a new employer isn't always due to unwillingness to return to office. This is due to the fact that businesses began remotely employing people living even hundreds of kilometers away from their offices. Now, if it's not possible to relocate the employee, switching to a hybrid model automatically means an end to the partnership.

One can notice a strong trend among employers of phasing out fully remote work in favor of hybrid solutions. In many cases, partial presence in the office becomes a necessity even despite the cost of losing some employees.

How do the candidates themselves perceive these changes? It would seem that a majority of workers, especially in the IT sector, are opposed to a return to the office, even in a limited scope. However, the phrase „the only constant in life is change” reflects the situation quite accurately. I can see that the IT employees are increasingly often seeking employment that would allow them to visit the office. During job interviews, the candidates are openly admitting that after several years of remote work, they'd like to meet with coworkers.

„Opportunity” is key here. A mandatory presence on certain, or a minimum number of days a week forces certain requirements. This is largely understandable: from the employer's perspective, it's worth utilizing their expensive office space and integrating the workers. However, these requirements may spark opposition - if remote work is possible, why is a minimum allotment of office work required?

In the IT world, remote work ceases to be the baseline standard it has recently become. Combining the ability to visit the office and the freedom to choose when and whether to utilize it. I doubt that 2024 will see all businesses return to fully stationary work (even if they operated this way before), but the market will likely split between those offering a hybrid model and those focused on fully remote work.



**Lucjan
Giza**

Senior Software Manager



Utilizing the potential of AI tools requires prior preparation

Our company is broadly exploring the potential of AI to promote the concept itself and glean precise insights into where and with which specific tools we can reap the greatest benefits. We began with a pilot program where a select group of employees used AI tools, like GitHub Copilot, for two months, undergoing training and sharing experiences.

Surprisingly, we noticed cases where AI assistance actually slowed the workers down because additional time was required to review and analyze the AI suggestions, particularly in trivial situations where manual action would be faster. Despite this, overall feedback and surveys indicated that AI tools, including ChatGPT, can significantly streamline work.

We also use AI in various aspects of our daily operations, including language models and tools like Copilot to analyze lengthy texts or generate emails and meeting summaries, which GPT handles with ease and efficiency. Beyond this, we are dedicated to enhancing our system with advanced functionalities using GPT-style language analysis. Our developers engage in workshops specifically tailored to leverage AI appropriately. In collaboration with companies like Microsoft and through our internal initiatives and hackathons, we are continuously developing our skills and integrating selective support features into our system to benefit our clients.



**Stanisław
Drosio**

Senior R&D Manager

Hyland™

” The market still recognizes the potential of AI tools

It's difficult to make a clear prediction on the effects of the proliferation of AI tools and the influence of the media bubble that has grown around this topic in 2023. Certainly, the IT services market has seen attempts to replace workers performing simple, repeatable tasks with artificial intelligence with artificial intelligence. This primarily concerns the simplest tasks implemented by shared services centers. Time will tell whether this trend, present in restructurings of businesses erroneously called IT companies (such as Infosys) will prove persistent or not. Other tech industry restructurings, painful for the employees of this market's largest enterprises, have largely been a correction for the pandemic period.

Currently, product-oriented IT businesses are focusing on maximizing the potential offered by AI tools. We are eagerly adopting new work support solutions (eg. Copilot, Copilot chat), but when summarizing the last year one can't quite call it a revolution changing our work environment, especially when taking into account the security of business data.



**Kamil
Jankowski**

Marketing & Communication Director



” New times, new skills

Artificial intelligence (AI) is undoubtedly revolutionizing marketing. While it won't replace marketers, those able to leverage AI tools will undoubtedly leave others behind.

AI is becoming a powerful tool supporting the work of marketers. It allows them to make better decisions, optimize their campaigns and create more personalized experiences. AI is doing very well with tasks requiring the analysis of vast amounts of data, but won't replace the creativity, strategic thinking, adaptability, emotional intelligence and ethical appraisal of experienced marketers.

The future of marketing will largely belong to the harmonious integration of artificial intelligence and specialized human knowledge. AI will automate repeatable and time-intensive tasks, allowing marketers to focus on strategic tasks of greater value. AI tools can carry out A/B tests and even create content. AI can identify consumer trends, preferences and behaviors, providing a better market insight. Chatbots and AI-powered virtual assistants can take care of client inquiries, while advertisement platforms are using AI to optimize campaigns and target ads.

AI won't replace marketers but rather will become their inseparable partner in creating more effective marketing. Those marketers who learn how to best utilize AI will gain a notable competitive advantage and shape the future of this dynamically developing sphere.



**Iga
Trojanowska**

Talent Acquisition Manager



Soft skills in IT

Undoubtedly, the soft skills of candidates have a very important role in the recruitment process, regardless of the position - and one could argue they are perhaps the most important. When it comes to technical roles, the common wisdom said that hard skills and experience were of utmost importance, with soft skills considered secondary. However, the pandemic period, forcing everyone to work remotely, has clearly shown that it's impossible to lead well-operating teams without good communication, self-discipline or the ability to read nonverbal signals.

Hybrid work is a rising trend in the job market, particularly enjoyed among IT specialists and managers. For many people who up to this time only worked from home, returning to the office reality means having to once again adapt to working in a team. This greatly showcases the importance of soft skills. Regardless of whether one is building architecture, programming or implementing IT systems - or even carrying out business analysis or overseeing agile project management methodologies - effective teamwork requires soft skills.

This is why at Falck Digital Technology, we place great importance on them. Importantly, we are seeing a big difference in how soft skills are perceived in Polish and Danish markets where we are running numerous recruitments. In Denmark, testing soft skills is a standard element of the recruitment process and even in the world of IT, dominated by hard skills, the candidates are not surprised by it. Currently, at the end of recruitment interviews (in both Denmark and Poland) we are performing the „PI Behavioral and Cognitive Assessments” as a key element of judging the candidates. The behavioral part verifies what kind of environment the candidate feels most comfortable in and what motivates them to act. The cognitive part, on the other hand, measures one's ability to learn, absorb information and understand new concepts in the workplace. The results round out the candidate's appraisal and tell their future superior what leadership style will prove most effective for that person. However, this information doesn't determine our final decision on whether to employ a person.



**Karolina
Nizińska**

HR Expert



Changes in the IT industry are affecting the employees

The dynamic development of AI, shifting priorities of employment strategies and the layoffs taking place in the industry have all had a major impact on the situation and approach of the IT specialists. Adapting to new technologies requires constantly improving one's qualifications and flexibility. On the other hand, an approach based on benefits and high salaries invites greater consideration of a balanced approach to the relations between employers and employees.

IT specialists are increasingly interested in proposals offering growth opportunities, participation in interesting projects and a healthy organizational culture. The industry layoffs, while troubling to some, are often welcoming reflection over one's career path and opening new possibilities. Change is inevitable - but the concerns over the future often come with new opportunities. By seeing them as an opportunity to think about what's most important to us in the workplace, we can discover new paths to reaching professional contentment.

In response to the ongoing changes, companies should build strong employer brands based on clearly stated values, transparency and authenticity in order to attract and retain the best talent. In the end, in workplace and private lives alike we often find happiness in the simple moments and our approach to the upcoming changes.

Poland's largest cities

Warsaw



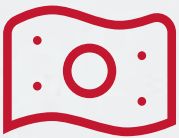
POPULATION

1,861,644*



UNEMPLOYMENT

1.5%**



AVERAGE GROSS SALARY

10,634.91 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



Karolina Małyska

Senior Recruitment
Consultant

grafon
Gi Group Holding

Warsaw's IT market remains the largest and most open to experienced specialists.

Warsaw remains Poland's main hub for employing IT specialists, even though the end of 2023 saw a notable drop in the number of job offers published in this industry as compared to a year ago (Q4 2022).

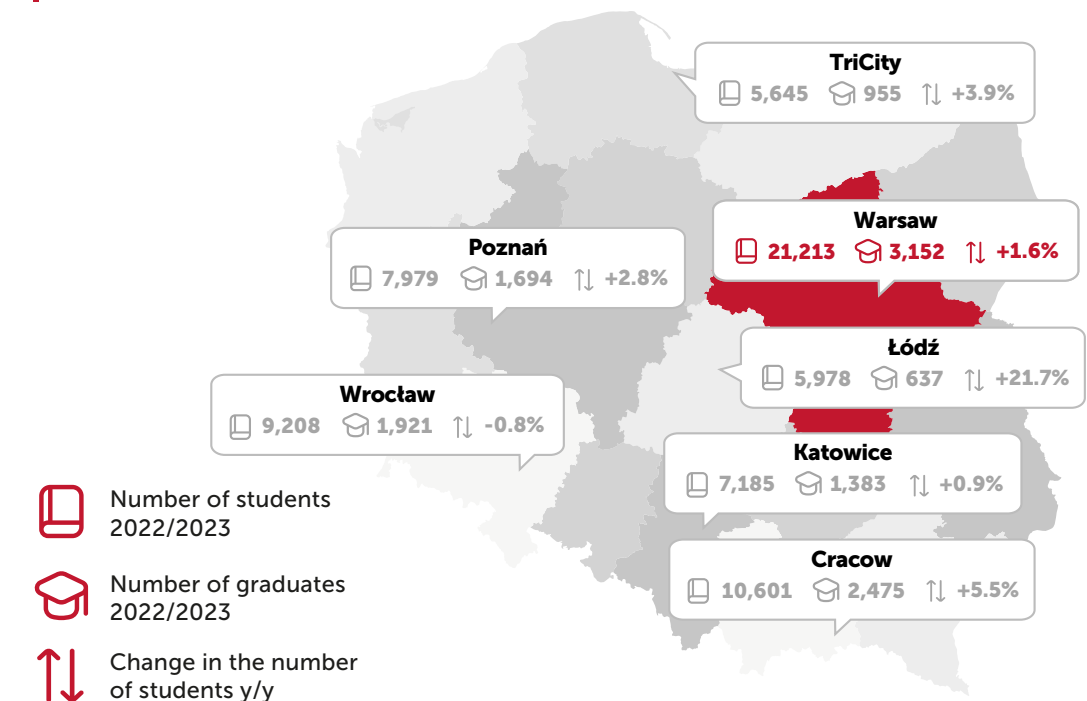
This decrease primarily concerns junior positions. The demand for senior employees remains high and the business situation of many businesses pushes them to seek the most experienced specialists available. This is true of greatly differing organizations, both in terms of their specificity and the purpose of their IT departments. However, businesses implementing external projects (and currently struggling with a falling number of orders) are especially eager to acquire professionals, which allows them to lower the total number of employees and optimize costs.

Another change faced by the Warsaw market is the noticeable trend of returning to the offices under a hybrid model, usually at a 3:2 or 2:3 ratio (home office/remote work). Remote work remains an important factor when choosing an offer, especially among the younger specialists more likely to expect flexible employment terms. However, the lower number of offers available on the market limits the possible choice and increasingly often the candidates have to adjust to a model preferred by the company.

When it comes to the salary expectations of the candidates, they haven't notably changed since the past few years. However, they somewhat differ between particular specializations. The artificial intelligence, cloud or devops specialists can have higher financial expectations than programmers.

In summary, despite the number of offers falling by the end of 2023, the IT market remains active, dynamic and highly competitive for the best specialists.

Academic potential



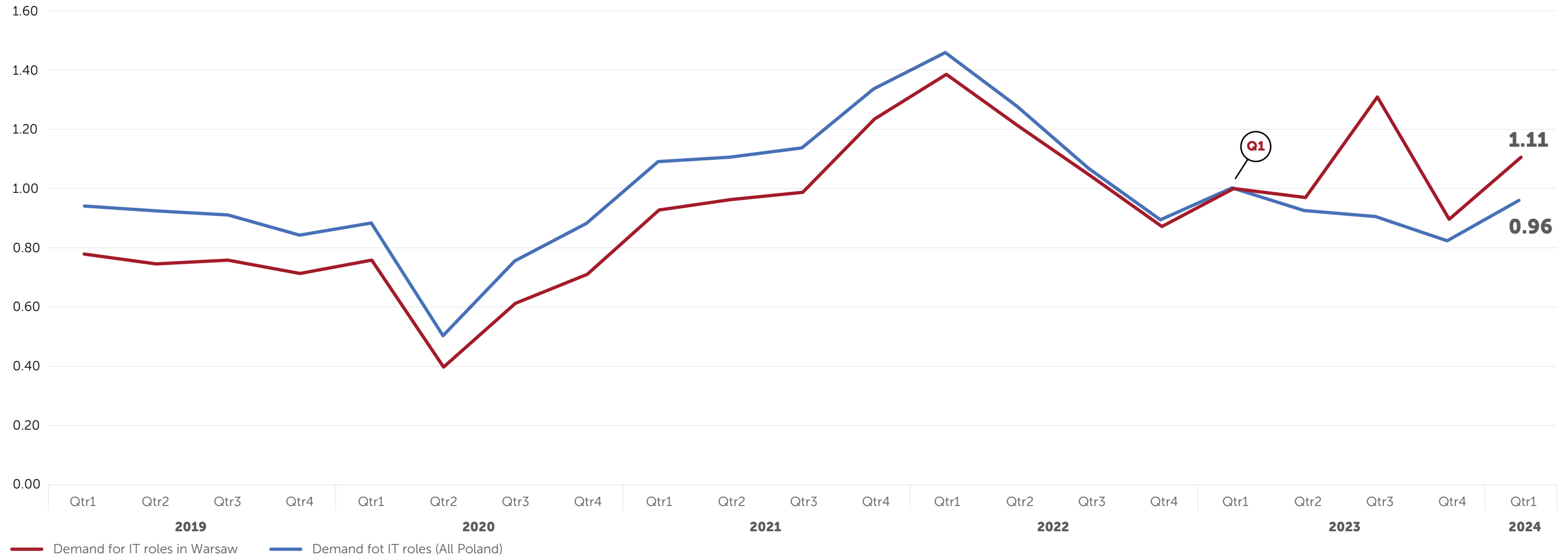
Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Warsaw

Warsaw demand for roles

indeks 1 = Q1 2023



Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.



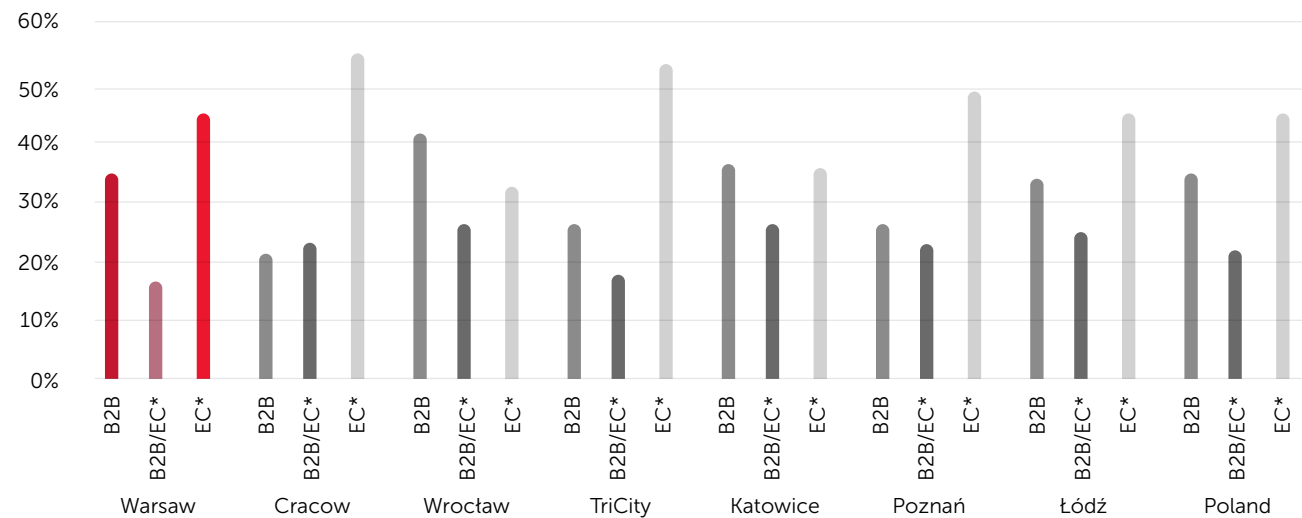
IT jobs in Warsaw

Job offer analysis for April 2024 shows that hybrid work is currently the most popular work mode in Warsaw's IT industry. It has outpaced the fully remote model by 14%.

IT employers in Warsaw usually tend to offer Employment Agreements, with as many as 46.6% of job offers providing this form of employment.

The current situation in the IT market provides the candidates with a wide selection of possibilities. They can choose between remote and hybrid work, as well as negotiate the form of employment (Employment Agreement or a B2B contract). In the capital, salaries for most IT jobs tend to greatly exceed the national average which, according to GUS, amounted to PLN 10,634.91 (gross) in March 2023)*.

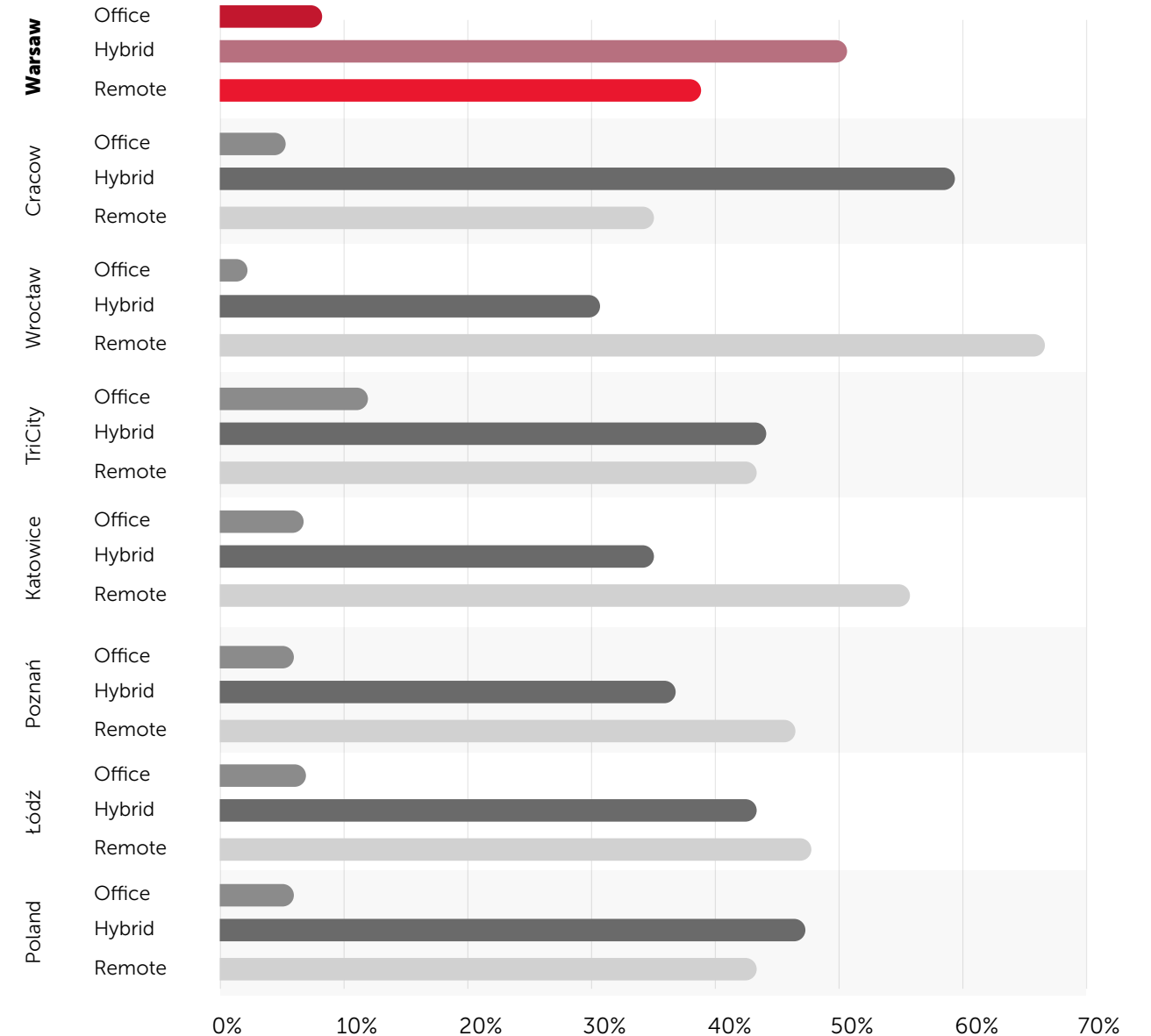
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Salary charts for Warsaw

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 7,500 | 10,000 | 7,500 |
| Technical Support 2nd Line | 8,500 | 14,000 | 10,500 |
| Technical Support 3rd Line | 12,000 | 17,000 | 14,500 |
| Service Desk Manager | 17,000 | 23,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 11,000 | 16,000 | 12,000 |
| Applications Support Specialist L3 | 14,500 | 18,500 | 13,500 |
| Application Support Manager | 18,000 | 24,000 | 19,000 |
| Network | | | |
| Network Analyst | 7,000 | 11,000 | 9,000 |
| Network Engineer | 15,500 | 23,000 | 15,000 |
| Network Architect | 19,000 | 25,000 | 22,000 |
| Network Manager | 19,000 | 25,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 14,000 | 22,000 | 17,000 |
| Network Security Engineer | 17,000 | 24,000 | 20,000 |
| Cybersecurity Engineer | 17,000 | 25,000 | 20,000 |
| Cloud Security Engineer | 14,000 | 25,000 | 22,000 |
| Identity & Access Management Engineer | 12,000 | 18,000 | 14,500 |
| Pentester | 20,000 | 30,000 | 25,000 |
| Security Architect | 25,000 | 33,000 | 29,000 |
| Security Manager | 22,000 | 34,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 12,000 | 20,000 | 15,500 |
| Linux/Unix Engineer | 13,000 | 19,500 | 15,500 |
| VMWare Engineer | 14,000 | 19,500 | 16,000 |
| AIX Engineer | 12,000 | 17,000 | 14,500 |
| Database Developer | 15,000 | 22,500 | 17,500 |
| Database Administrator | 13,000 | 18,500 | 15,500 |
| Storage & Backup | 15,000 | 20,000 | 16,000 |
| Infrastructure Architect | 21,000 | 30,000 | 26,000 |
| Infrastructure Manager | 21,500 | 29,000 | 26,500 |



Salary charts for Warsaw

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 18,000 | 24,000 | 20,500 |
| SAP Consultant | 19,000 | 27,000 | 23,000 |
| Salesforce Developer | 16,000 | 25,000 | 18,000 |
| Salesforce Consultant | 15,000 | 24,000 | 17,000 |
| SAP Manager | 19,000 | 24,000 | 24,000 |
| SAP Lead/Architect | 24,000 | 32,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 15,000 | 19,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 20,000 | 26,000 | 21,500 |
| Java Developer | 19,000 | 25,000 | 20,000 |
| Senior Java Developer | 25,000 | 33,000 | 25,000 |
| Scala Developer | 18,000 | 24,000 | 17,000 |
| Senior Scala Developer | 24,000 | 30,000 | 23,000 |
| C#/.NET Developer | 19,000 | 24,000 | 18,000 |
| Senior C#/.NET Developer | 24,000 | 29,000 | 24,000 |
| Unity Developer | 15,000 | 19,000 | 15,000 |
| Senior Unity Developer | 19,000 | 23,000 | 19,000 |
| Frontend Developer (JavaScript) | 19,000 | 24,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 24,000 | 29,000 | 24,000 |
| PHP Developer | 14,000 | 18,000 | 15,000 |
| Senior PHP Developer | 18,000 | 23,500 | 19,000 |
| RoR Developer | 17,000 | 22,000 | 16,500 |
| Senior RoR Developer | 22,000 | 28,000 | 23,000 |
| Python Developer | 18,000 | 23,000 | 18,500 |
| Senior Python Developer | 23,000 | 29,000 | 25,000 |
| Rust Developer | 15,000 | 20,000 | 15,000 |
| Senior Rust Developer | 21,000 | 27,000 | 22,000 |
| Full Stack Developer | 21,000 | 25,000 | 22,000 |
| Senior Full Stack Developer | 25,000 | 31,000 | 27,000 |
| Golang Developer | 16,500 | 21,000 | 16,000 |
| Senior Golang Developer | 21,000 | 28,000 | 22,000 |
| Blockchain Developer | 20,000 | 27,000 | 23,000 |
| Senior Blockchain Developer | 27,000 | 34,000 | 26,000 |
| RPA Developer | 9,000 | 16,000 | 15,000 |
| Senior RPA Developer | 13,000 | 19,000 | 19,000 |
| Software Engineering Manager | 30,000 | 38,000 | 30,000 |
| Software Development Director/CTO | 40,000 | 42,000 | 38,000 |
| Software Architect | 31,000 | 38,000 | 31,000 |



Salary charts for Warsaw

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 16,000 | 23,000 | 17,000 |
| Senior Android Developer | 21,000 | 28,000 | 23,000 |
| iOS Developer | 16,000 | 24,000 | 18,000 |
| Senior iOS Developer | 21,000 | 28,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 14,000 | 19,000 | 13,000 |
| QA Engineer (automation) | 17,000 | 24,500 | 17,500 |
| Senior QA Engineer (automation) | 23,000 | 29,000 | 23,000 |
| QA Lead | 19,000 | 25,000 | 22,000 |
| Test Manager | 20,000 | 27,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 18,000 | 26,000 | 23,000 |
| Senior DevOps (dev background) | 26,000 | 33,000 | 28,000 |
| DevOps (admin background) | 17,000 | 22,000 | 20,000 |
| Senior DevOps (admin background) | 21,000 | 26,000 | 25,000 |
| Site Reliability Engineer | 18,500 | 26,000 | 22,000 |
| Senior Site Reliability Engineer | 25,000 | 33,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Cracow



POPULATION

804,200*



UNEMPLOYMENT

2.1%**



AVERAGE GROSS SALARY

11,372.66 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



Klaudia Jaskot
| Team Leader



IT industry in Cracow

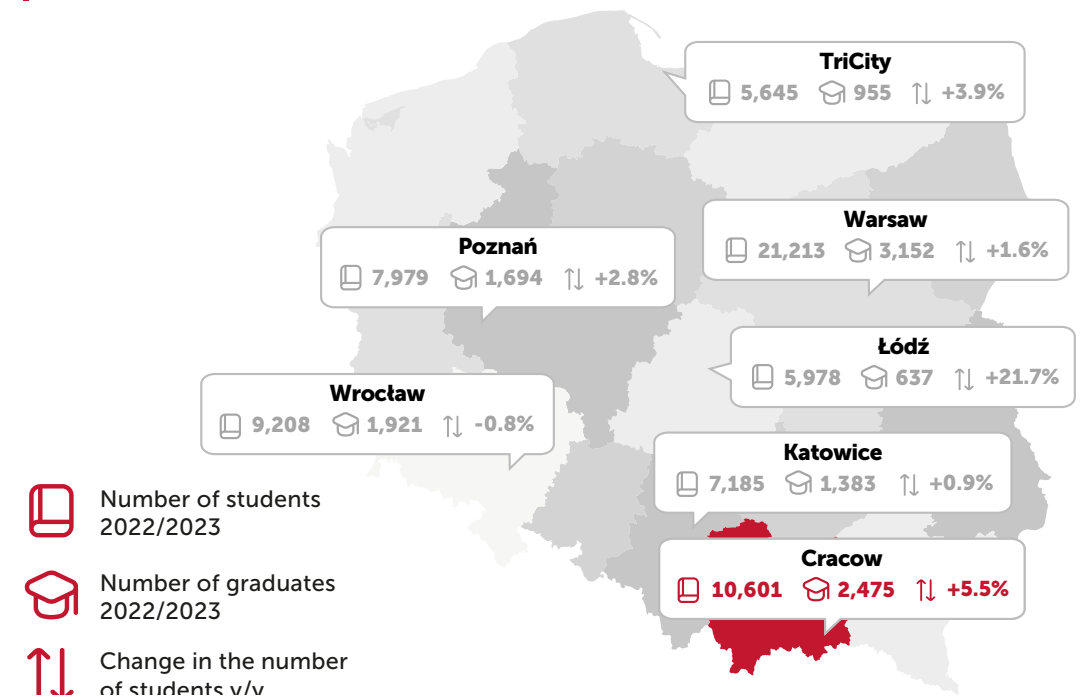
The Cracow's IT industry keeps developing despite slowdowns and a lower employment rate as compared to previous years. While some processes are being relocated to countries with lower living costs, resulting in layoffs taking place in some companies, the market is still welcoming new investments. Cracow is Poland's second-largest center for IT specialists and remains attractive to investors.

The majority of job offers for IT specialists in the local job market concern the spheres of IT consulting, the financial industry and software suppliers. As of late, one could also observe increased demand for telecommunication, manufacturing and engineering experts. We also see a high demand for roles related to software development, data, blockchain and cybersecurity. The development of artificial intelligence further stimulates the demand for specialists in machine learning, AI and the Internet of Things.

On the other hand, the number of offers for junior positions has been falling for some time, despite the growing number of computer science students. The businesses are currently focusing on qualified Regular and Senior level employees.

The preferences as to the mode of work are changing as well. A majority of offers still concern remote work, but the hybrid mode is increasingly growing in popularity. There's also a noticeable trend of returning to offices.

Academic potential



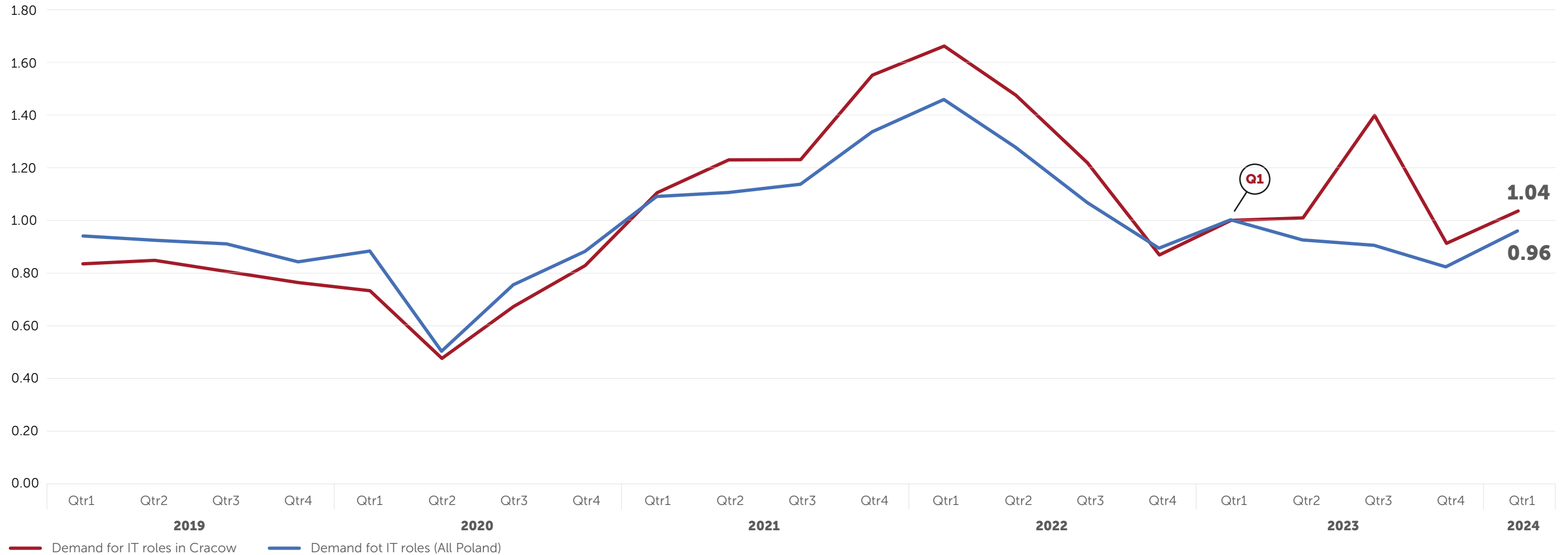
Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Cracow

Cracow demand for roles

indeks 1 = Q1 2023



Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.

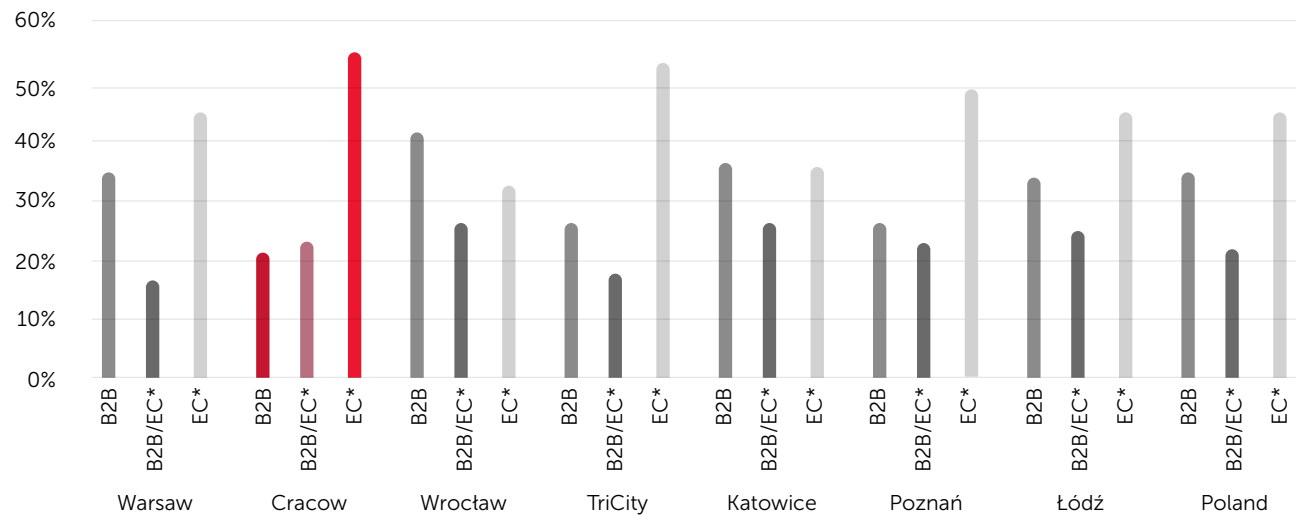


IT jobs in Cracow

Job offer analysis for April 2024 shows that hybrid work is currently the most popular work mode in the IT industry. Fully remote work still exceeds the returns to offices.

The salaries of IT specialists in Cracow, similar to their Warsaw colleagues, tend to exceed the average gross pay published by GUS (PLN 11,372.66 in March 2024). Cracow specialists are being primarily offered Employment Agreements (56% of analyzed advertisements, marking the highest percentage of all analyzed locations). B2B contracts are the least likely to be offered in Cracow.

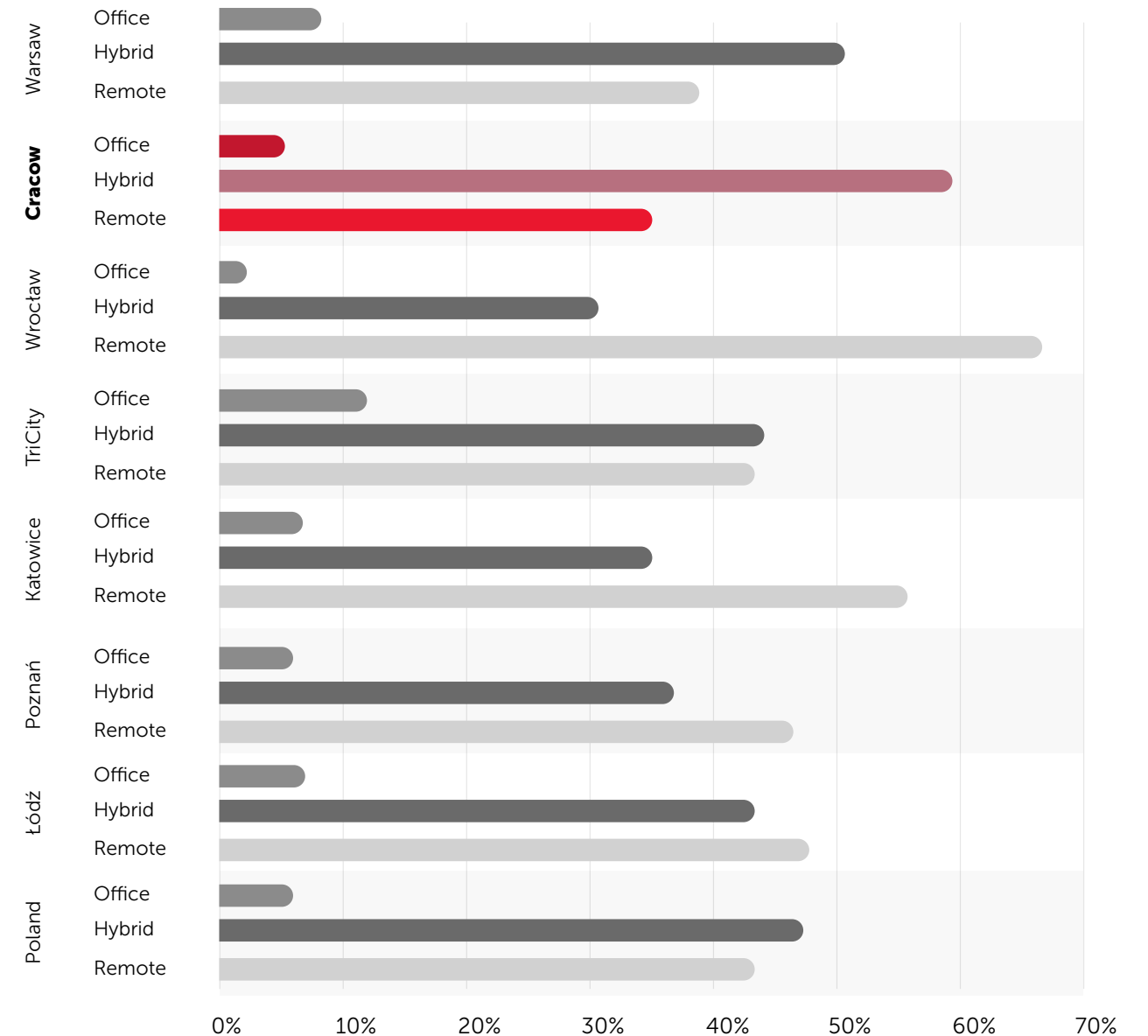
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Katarzyna Wysocka

Head of the Department for Entrepreneurship
& Innovation of the Krakow City Hall



Kraków

Local initiatives are strengthening Cracow's technological potential

Cracow is an important business center and a place where research and development centers are dynamically growing. This has been made possible due to the potential of the local academia and the numerous, well-educated students and graduates. The city provides the necessary infrastructure and organization, hence its attractiveness to financial institutions, high-tech and life science businesses, as well as start-ups.

One of our strategic goals, as defined in the „Cracow Development Strategy. I want to live here. Cracow 2030.” is developing a knowledge-based economy, that is creating the city's competitive advantage based on innovation, information and human skills. Another of Cracow's advantages is the quality and involvement of academic staff and business representatives and the cross-sector cooperation between them and local authorities. The development of innovation is further helped by a well-profiled education system and newly established faculties.

The ZABŁOCIE 20.22 Innovation and Socio-Economic Cluster is an example of the city's initiative supporting this idea and forming a strong core for the revitalization attempts. As a space for diverse entities such as start-ups, entrepreneurs, NGOs, residents or local communities, it supports cooperation and shared initiatives for networking and building cross-sector partnerships to implement smart city solutions.

The improved quality of life in Cracow is a motor for defining the direction of its overall development. Technology, much like innovation, has to be user-friendly to make Cracow a place one wants to



Salary charts for Cracow

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 6,000 | 8,500 | 7,500 |
| Technical Support 2nd Line | 7,000 | 12,500 | 10,500 |
| Technical Support 3rd Line | 11,500 | 16,500 | 14,500 |
| Service Desk Manager | 17,000 | 23,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 11,000 | 14,000 | 12,000 |
| Applications Support Specialist L3 | 12,500 | 16,500 | 13,500 |
| Application Support Manager | 18,000 | 24,000 | 19,000 |
| Network | | | |
| Network Analyst | 7,000 | 11,000 | 9,000 |
| Network Engineer | 15,000 | 23,000 | 15,000 |
| Network Architect | 18,000 | 24,000 | 22,000 |
| Network Manager | 19,000 | 24,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 14,000 | 22,000 | 17,000 |
| Network Security Engineer | 16,000 | 22,000 | 20,000 |
| Cybersecurity Engineer | 14,000 | 22,000 | 20,000 |
| Cloud Security Engineer | 16,000 | 24,000 | 22,000 |
| Identity & Access Management Engineer | 13,000 | 17,000 | 14,500 |
| Pentester | 20,000 | 30,000 | 25,000 |
| Security Architect | 25,000 | 30,000 | 29,000 |
| Security Manager | 24,000 | 33,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 13,000 | 17,000 | 15,500 |
| Linux/Unix Engineer | 13,000 | 18,000 | 15,500 |
| VMWare Engineer | 13,000 | 18,000 | 16,000 |
| AIX Engineer | 13,000 | 17,000 | 14,500 |
| Database Developer | 16,000 | 22,000 | 17,500 |
| Database Administrator | 13,000 | 18,000 | 15,500 |
| Storage & Backup | 14,000 | 20,000 | 16,000 |
| Infrastructure Architect | 21,000 | 30,000 | 26,000 |
| Infrastructure Manager | 21,000 | 29,000 | 26,500 |



Salary charts for Cracow

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 17,000 | 23,000 | 20,500 |
| SAP Consultant | 17,000 | 25,000 | 23,000 |
| Salesforce Developer | 13,000 | 25,000 | 18,000 |
| Salesforce Consultant | 13,000 | 24,000 | 17,000 |
| SAP Manager | 20,000 | 24,000 | 24,000 |
| SAP Lead/Architect | 21,000 | 33,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 15,000 | 19,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 20,000 | 26,000 | 21,500 |
| Java Developer | 18,000 | 24,000 | 20,000 |
| Senior Java Developer | 25,000 | 31,000 | 25,000 |
| Scala Developer | 18,000 | 24,000 | 17,000 |
| Senior Scala Developer | 23,000 | 30,000 | 23,000 |
| C#/.NET Developer | 17,000 | 24,000 | 18,000 |
| Senior C#/.NET Developer | 24,000 | 29,000 | 24,000 |
| Unity Developer | 15,000 | 19,000 | 15,000 |
| Senior Unity Developer | 19,000 | 23,000 | 19,000 |
| Frontend Developer (JavaScript) | 18,000 | 24,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 24,000 | 29,000 | 24,000 |
| PHP Developer | 14,000 | 18,000 | 15,000 |
| Senior PHP Developer | 18,000 | 23,500 | 19,000 |
| RoR Developer | 16,000 | 22,000 | 16,500 |
| Senior RoR Developer | 22,000 | 28,000 | 23,000 |
| Python Developer | 17,000 | 23,000 | 18,500 |
| Senior Python Developer | 23,000 | 29,000 | 25,000 |
| Rust Developer | 14,000 | 20,000 | 15,000 |
| Senior Rust Developer | 20,000 | 27,000 | 22,000 |
| Full Stack Developer | 18,000 | 24,000 | 22,000 |
| Senior Full Stack Developer | 24,000 | 30,000 | 27,000 |
| Golang Developer | 16,000 | 20,000 | 16,000 |
| Senior Golang Developer | 20,000 | 28,000 | 22,000 |
| Blockchain Developer | 20,000 | 26,000 | 23,000 |
| Senior Blockchain Developer | 26,000 | 32,000 | 26,000 |
| RPA Developer | 10,000 | 16,000 | 15,000 |
| Senior RPA Developer | 16,000 | 23,000 | 19,000 |
| Software Engineering Manager | 26,000 | 35,000 | 30,000 |
| Software Development Director/CTO | 30,000 | 40,000 | 38,000 |
| Software Architect | 28,000 | 35,000 | 31,000 |



Salary charts for Cracow

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 16,000 | 23,000 | 17,000 |
| Senior Android Developer | 23,000 | 27,000 | 23,000 |
| iOS Developer | 17,000 | 24,000 | 18,000 |
| Senior iOS Developer | 24,000 | 28,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 14,000 | 18,000 | 13,000 |
| QA Engineer (automation) | 17 000 | 23,500 | 17,500 |
| Senior QA Engineer (automation) | 23,000 | 27,000 | 23,000 |
| QA Lead | 19,000 | 25,000 | 22,000 |
| Test Manager | 20,000 | 26,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 18,000 | 25,000 | 23,000 |
| Senior DevOps (dev background) | 25,000 | 31,000 | 28,000 |
| DevOps (admin background) | 16,000 | 21,000 | 20,000 |
| Senior DevOps (admin background) | 21,000 | 25,000 | 25,000 |
| Site Reliability Engineer | 17,000 | 25,000 | 22,000 |
| Senior Site Reliability Engineer | 25,000 | 32,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Wrocław



POPULATION

674,100*



UNEMPLOYMENT

1.7%**



AVERAGE GROSS SALARY

9,066.56 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



Karolina Damas

Division Manager

grafon
Gi Group Holding

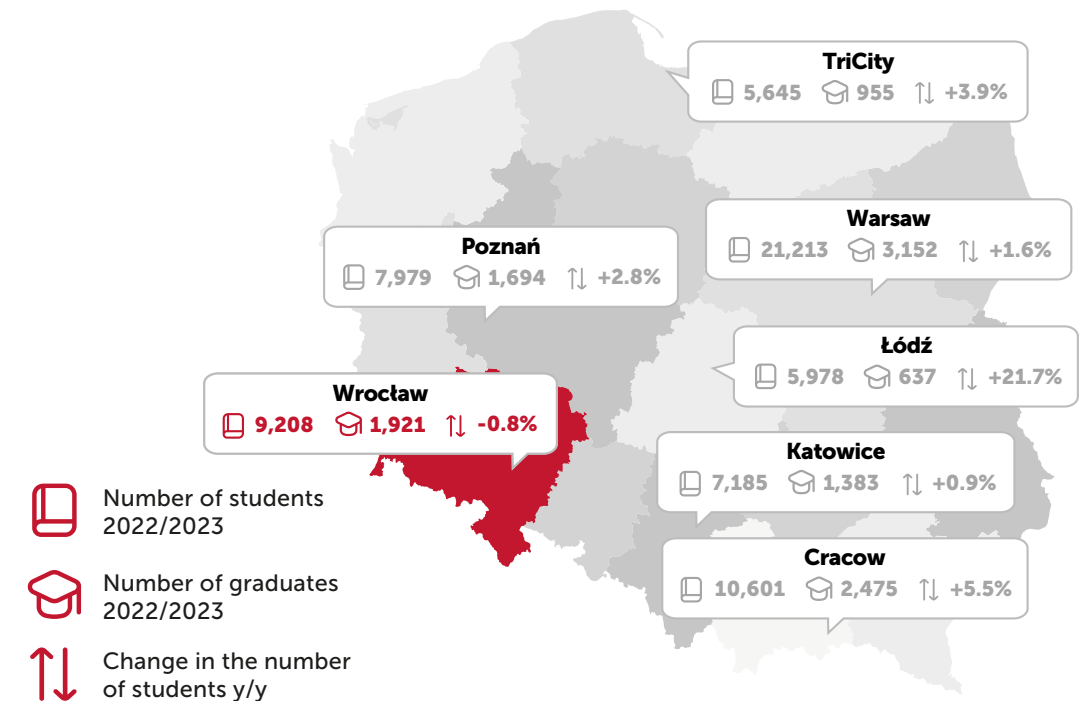
Wrocław's IT market

For several years now, Wrocław has remained one of Poland's top IT hubs. The past year has seen a strong stabilization and a lack of major investments, yet the demand for IT specialists remains high. However, we are seeing a change in the experience levels expected from the candidates - offers for senior employees and consultants predominate. There are much fewer offers for junior positions, largely due to the low number of new investments and projects in the sector.

The businesses strive to retain good employees, who in turn are less eager to change their workplace than a year ago. Many employees are noticing the slowdown in the job market, which influences their willingness to consider new offers.

Wrocław's IT market is still dominated by software development roles (programming positions), however, we have noticed an increased number of offers concerning data analysis and SAP/CRM-related positions. The preferences as to the work mode have also been changing. An increased number of local companies are promoting visits to the office, however, there remains an understanding of employee preferences concerning their mode of work. This is why offers allowing for fully remote work still predominate.

Academic potential



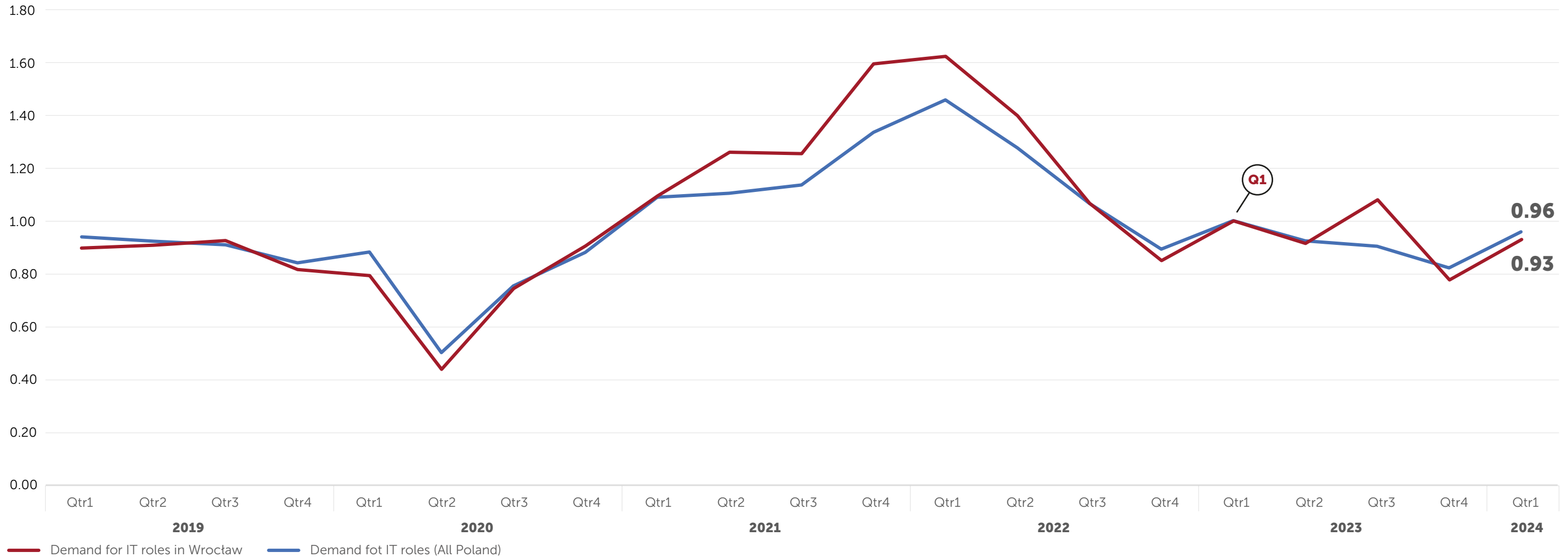
Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Wrocław

Demand for IT roles in Wrocław

indeks 1 = Q1 2023



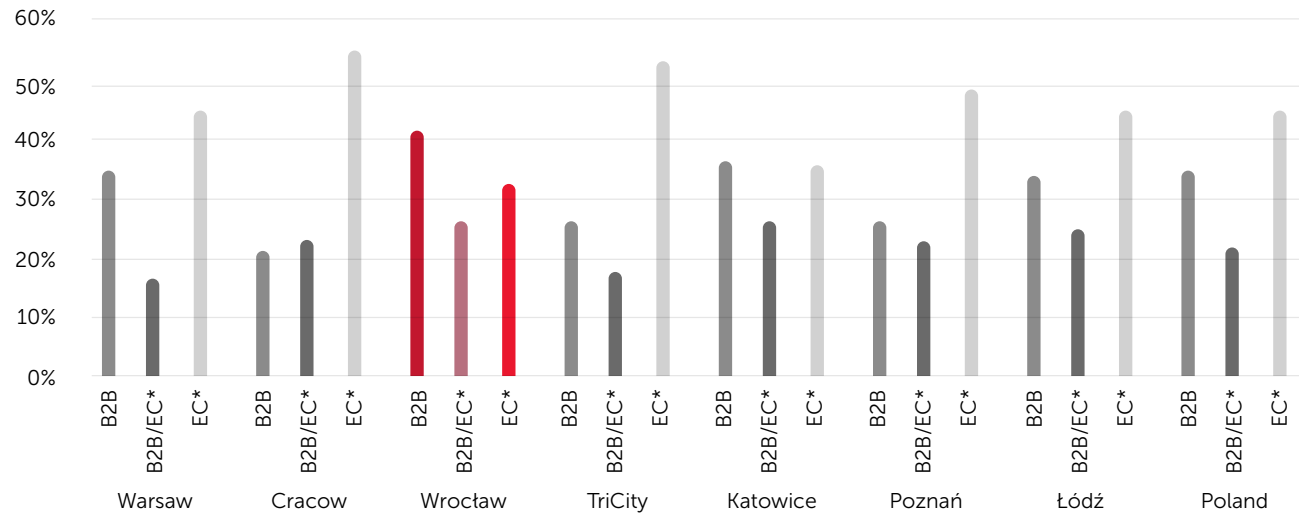
Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.

IT jobs in Wrocław

Wrocław is fairly distinct from other Polish cities in terms of work mode and contract type preferences in the IT industry. Remote work predominates here, with over 66% of Wrocław's job offers covering this mode of work. This marks the highest percentage among the researched cities, exceeding the national average by 22.5%.

Only a handful of companies require a constant presence in their offices and of all researched locations, it was Wrocław that had seen the smallest number of IT workers return to stationary work. B2B contracts are the most popular forms of employment among Wrocław's IT businesses.

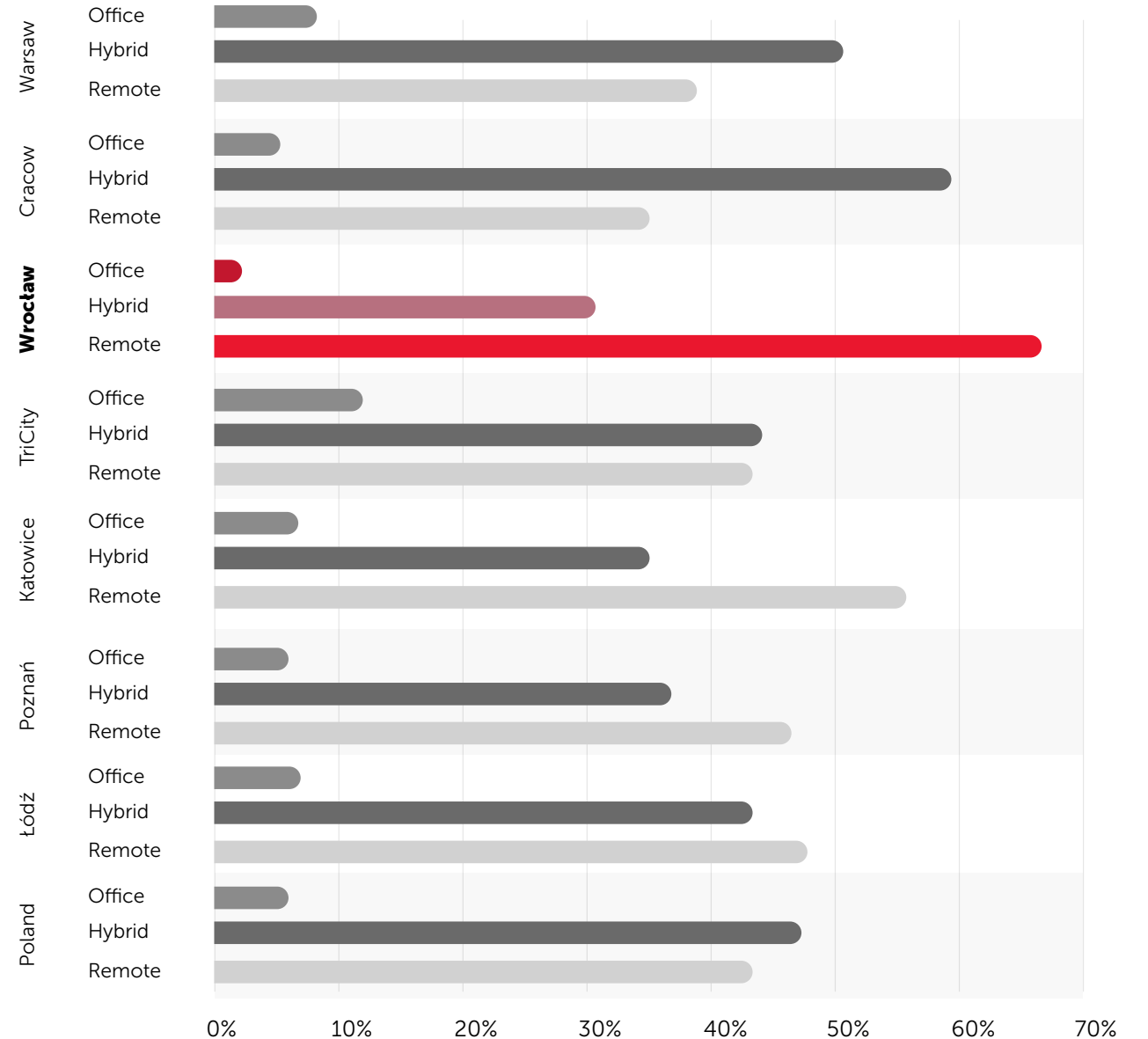
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Salary charts for Wrocław

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 6,000 | 8,000 | 7,500 |
| Technical Support 2nd Line | 8,000 | 10,500 | 10,500 |
| Technical Support 3rd Line | 10,000 | 14,500 | 14,500 |
| Service Desk Manager | 16,000 | 22,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 9,500 | 14,000 | 12,000 |
| Applications Support Specialist L3 | 11,000 | 16,000 | 13,500 |
| Application Support Manager | 18,000 | 24,000 | 19,000 |
| Network | | | |
| Network Analyst | 8,000 | 11,000 | 9,000 |
| Network Engineer | 12,000 | 16,000 | 15,000 |
| Network Architect | 18,000 | 24,000 | 22,000 |
| Network Manager | 16,000 | 24,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 12,000 | 17,500 | 17,000 |
| Network Security Engineer | 12,000 | 20,000 | 20,000 |
| Cybersecurity Engineer | 13,000 | 20,000 | 20,000 |
| Cloud Security Engineer | 14,000 | 23,000 | 22,000 |
| Identity & Access Management Engineer | 11,000 | 15,000 | 14,500 |
| Pentester | 17,000 | 25,000 | 25,000 |
| Security Architect | 24,000 | 29,000 | 29,000 |
| Security Manager | 22,000 | 28,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 10,000 | 16,000 | 15,500 |
| Linux/Unix Engineer | 11,000 | 16,000 | 15,500 |
| VMWare Engineer | 12,000 | 19,000 | 16,000 |
| AIX Engineer | 10,000 | 15,000 | 14,500 |
| Database Developer | 12,000 | 18,000 | 17,500 |
| Database Administrator | 10,000 | 16,000 | 15,500 |
| Storage & Backup | 11,000 | 17,000 | 16,000 |
| Infrastructure Architect | 21,000 | 27,000 | 26,000 |
| Infrastructure Manager | 20,000 | 27,000 | 26,500 |



Salary charts for Wrocław

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 16,000 | 21,000 | 20,500 |
| SAP Consultant | 17,000 | 24,000 | 23,000 |
| Salesforce Developer | 11,000 | 18,000 | 18,000 |
| Salesforce Consultant | 11,000 | 20,000 | 17,000 |
| SAP Manager | 17,000 | 25,000 | 24,000 |
| SAP Lead/Architect | 22,000 | 32,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 12,000 | 22,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 16,000 | 23,000 | 21,500 |
| Java Developer | 16,000 | 21,000 | 20,000 |
| Senior Java Developer | 21,000 | 26,000 | 25,000 |
| Scala Developer | 14,000 | 19,000 | 17,000 |
| Senior Scala Developer | 19,000 | 25,000 | 23,000 |
| C#/.NET Developer | 14,000 | 19,000 | 18,000 |
| Senior C#/.NET Developer | 19,000 | 26,000 | 24,000 |
| Unity Developer | 12,000 | 18,000 | 15,000 |
| Senior Unity Developer | 18,000 | 21,000 | 19,000 |
| Frontend Developer (JavaScript) | 14,000 | 19,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 19,000 | 26,000 | 24,000 |
| PHP Developer | 12,000 | 16,000 | 15,000 |
| Senior PHP Developer | 16,000 | 22,000 | 19,000 |
| RoR Developer | 12,000 | 17,000 | 16,500 |
| Senior RoR Developer | 17,000 | 24,000 | 23,000 |
| Python Developer | 11,000 | 18,500 | 18,500 |
| Senior Python Developer | 17,000 | 25,000 | 25,000 |
| Rust Developer | 10,000 | 15,000 | 15,000 |
| Senior Rust Developer | 15,000 | 22,000 | 22,000 |
| Full Stack Developer | 16,000 | 22,000 | 22,000 |
| Senior Full Stack Developer | 20,000 | 28,000 | 27,000 |
| Golang Developer | 12,000 | 18,000 | 16,000 |
| Senior Golang Developer | 18,000 | 22,000 | 22,000 |
| Blockchain Developer | 18,000 | 23,000 | 23,000 |
| Senior Blockchain Developer | 22,000 | 26,000 | 26,000 |
| RPA Developer | 8,500 | 15,000 | 15,000 |
| Senior RPA Developer | 12,000 | 19,000 | 19,000 |
| Software Engineering Manager | 25,000 | 35,000 | 30,000 |
| Software Development Director/CTO | 30,000 | 40,000 | 38,000 |
| Software Architect | 26,000 | 35,000 | 31,000 |



Salary charts for Wrocław

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 14,000 | 18,000 | 17,000 |
| Senior Android Developer | 18,000 | 23,000 | 23,000 |
| iOS Developer | 13,000 | 19,000 | 18,000 |
| Senior iOS Developer | 18,000 | 25,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 10,000 | 13,000 | 13,000 |
| QA Engineer (automation) | 14,000 | 18,000 | 17,500 |
| Senior QA Engineer (automation) | 17,000 | 24,000 | 23,000 |
| QA Lead | 18,000 | 22,000 | 22,000 |
| Test Manager | 20,000 | 25,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 17,000 | 25,000 | 23,000 |
| Senior DevOps (dev background) | 25,000 | 30,000 | 28,000 |
| DevOps (admin background) | 16,000 | 22,000 | 20,000 |
| Senior DevOps (admin background) | 22,000 | 25,000 | 25,000 |
| Site Reliability Engineer | 16,000 | 22,000 | 22,000 |
| Senior Site Reliability Engineer | 22,000 | 29,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Łódź



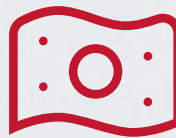
POPULATION

655,279*



UNEMPLOYMENT

4.6%**



AVERAGE GROSS SALARY

7,659.38 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



Mariusz Lemparty

Branch Manager

grafon
Gi Group Holding

New trends in the Łódź IT market

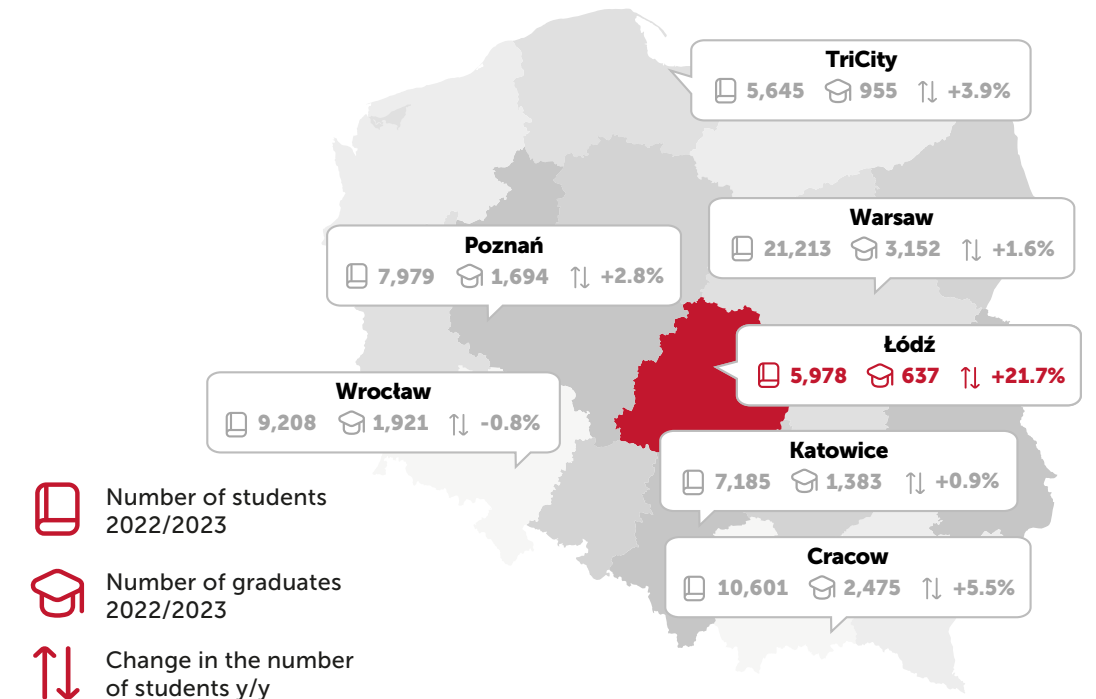
Access to remote work has led to increased demand for specialists from the Łódź market, which in turn caused the local wages to quickly reach similar levels to those from other major cities. On the other hand, we are seeing a certain slowdown as compared to 2022 - the industry has been affected by layoffs and the number of open recruitments is decidedly lower. In comparison to the rest of the country, Łódź saw a slight increase in demand in Q1 2024, however, it'd be difficult to call it a trend, given the extent previous year's downturn.

A reduced number of recruitments primarily concerns the sphere of software development. However, at the same time we are seeing an increased demand for infrastructure and cybersecurity specialists as the digitization and automation of many processes is often paired with a need to ensure the safety of transferred and stored data. The increase in demand also concerns network and business continuity specialists. Experts in these areas can expect attractive offers and pay raises in line with the dynamics seen in the past few years. On the other hand, the developers increasingly struggle with downtime between projects and the uncertainty as to the continuity of current implementations.

In terms of positions and business areas, Łódź has largely equalized with Poland's major cities in terms of demand for software and SAP specialists. Data-related positions also enjoy an unwavering demand. Application Engineers, Business Analysts and Cloud specialists are constantly being sought out by IT employers. When it comes to SAP, the attention is on consultants experienced with logistical and manufacturing modules. Due to the need to implement changes and transition to SAP4Hana, companies are also looking for workers experienced with data migration and cloud solutions that are being strongly developed by SAP.

2024 will definitely prove a demanding time for those employed in the IT industry, but looking at the changing global trends data and AI will be the focus of many people entering the industry or looking to reskill. Nevertheless, it is certain that the IT industry is no longer providing the stability of employment and pay rises at the pace seen over the past few years.

Academic potential

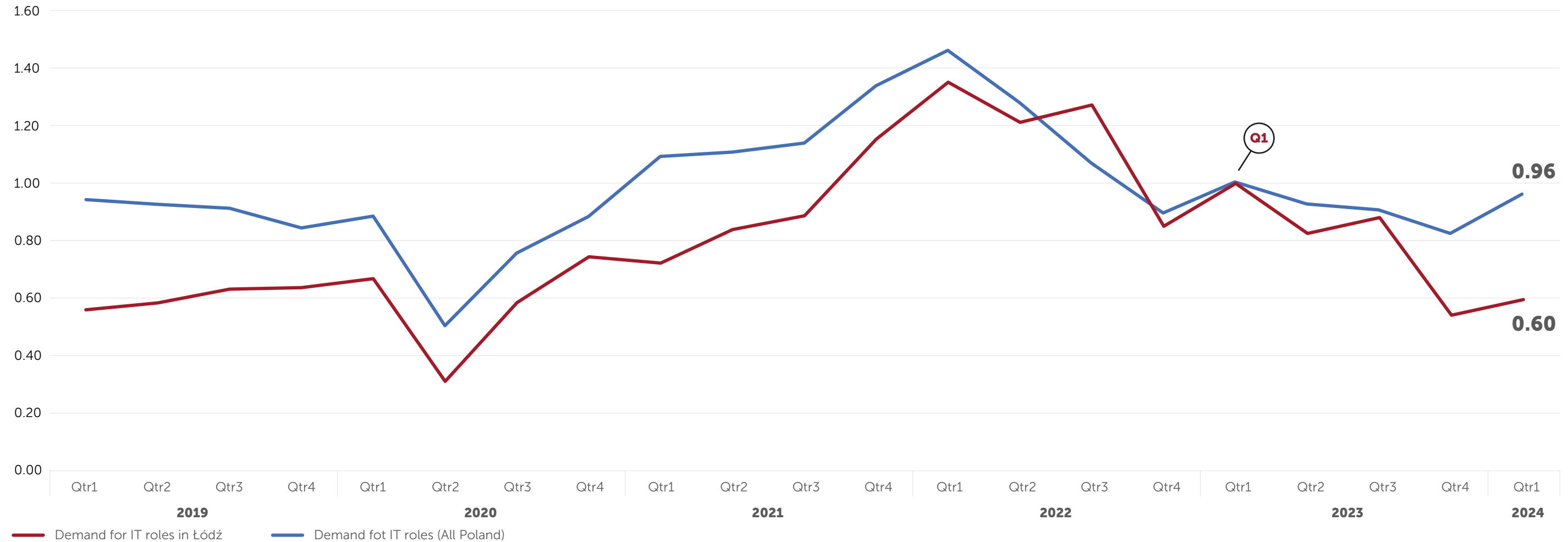


Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Łódź

Demand for IT roles in Łódź
indeks 1 = Q1 2023



Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.

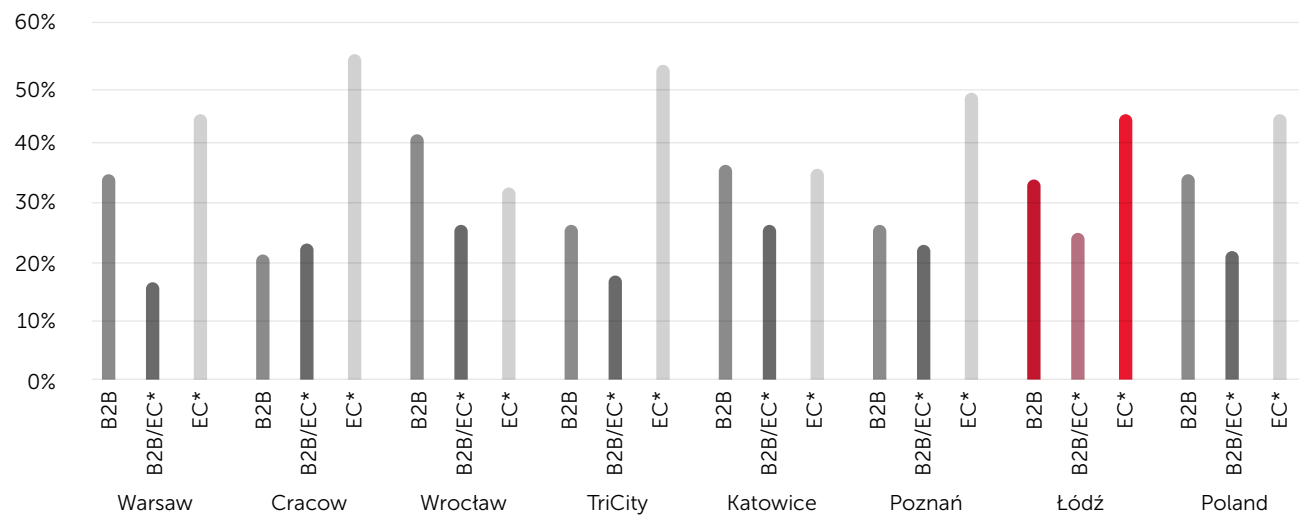


IT jobs in Łódź

The job market for the IT industry in Łódź is characterized by a predominance of remote work, which seems to be supported by the analysis of April 2024 job offers. However, the difference between remote and hybrid models is slight, at merely 5.1%. It bears mentioning that 7.7% of all offers are proposing stationary work, a similar result to Poland's national average in this period.

IT employers in Łódź tend to most commonly offer Employment Agreements (47.4% of offers). This is a good choice for those valuing the stability and security of employment. B2B contract offers are approximately just as common as offers allowing the candidate to choose their preferred form of employment.

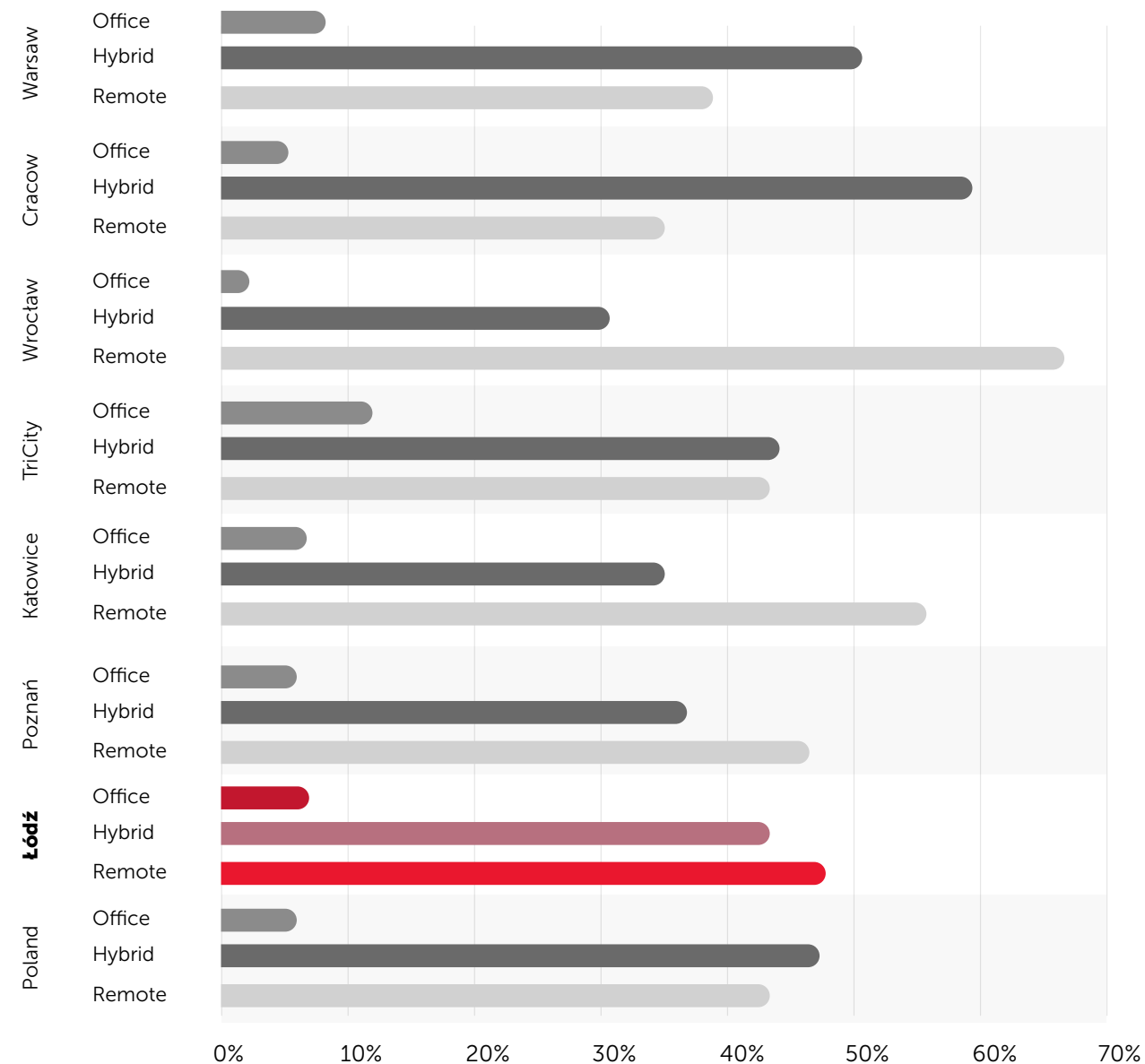
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Salary charts for Łódź

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 5,500 | 7,500 | 7,500 |
| Technical Support 2nd Line | 7,000 | 10,500 | 10,500 |
| Technical Support 3rd Line | 10,000 | 14,500 | 14,500 |
| Service Desk Manager | 15,000 | 20,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 11,000 | 13,500 | 12,000 |
| Applications Support Specialist L3 | 10,000 | 15,000 | 13,500 |
| Application Support Manager | 16,000 | 21,000 | 19,000 |
| Network | | | |
| Network Analyst | 7,500 | 9,000 | 9,000 |
| Network Engineer | 12,000 | 15,000 | 15,000 |
| Network Architect | 15,000 | 22,000 | 22,000 |
| Network Manager | 18,000 | 23,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 11,000 | 17,000 | 17,000 |
| Network Security Engineer | 13,000 | 20,000 | 20,000 |
| Cybersecurity Engineer | 13,000 | 22,000 | 20,000 |
| Cloud Security Engineer | 14,000 | 22,000 | 22,000 |
| Identity & Access Management Engineer | 10,000 | 15,000 | 14,500 |
| Pentester | 19,000 | 25,000 | 25,000 |
| Security Architect | 22,000 | 29,000 | 29,000 |
| Security Manager | 19,000 | 28,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 10,000 | 15,500 | 15,500 |
| Linux/Unix Engineer | 10,000 | 16,000 | 15,500 |
| VMWare Engineer | 11,500 | 17,000 | 16,000 |
| AIX Engineer | 10,000 | 15,000 | 14,500 |
| Database Developer | 12,000 | 17,500 | 17,500 |
| Database Administrator | 10,000 | 15,000 | 15,500 |
| Storage & Backup | 13,000 | 16,000 | 16,000 |
| Infrastructure Architect | 16,000 | 26,000 | 26,000 |
| Infrastructure Manager | 19,000 | 26,500 | 26,500 |



Salary charts for Łódź

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 17,000 | 27,000 | 20,500 |
| SAP Consultant | 19,000 | 25,000 | 23,000 |
| Salesforce Developer | 21,000 | 25,000 | 18,000 |
| Salesforce Consultant | 20,000 | 24,000 | 17,000 |
| SAP Manager | 20,000 | 25,000 | 24,000 |
| SAP Lead/Architect | 22,000 | 30,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 12,000 | 17,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 18,000 | 24,000 | 21,500 |
| Java Developer | 15,500 | 21,000 | 20,000 |
| Senior Java Developer | 21,000 | 29,000 | 25,000 |
| Scala Developer | 16,000 | 22,000 | 17,000 |
| Senior Scala Developer | 22,000 | 29,000 | 23,000 |
| C#/.NET Developer | 13,500 | 18,000 | 18,000 |
| Senior C#/.NET Developer | 19,000 | 26,000 | 24,000 |
| Unity Developer | 12,000 | 15,500 | 15,000 |
| Senior Unity Developer | 15,500 | 19,000 | 19,000 |
| Frontend Developer (JavaScript) | 14,000 | 19,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 20,000 | 25,000 | 24,000 |
| PHP Developer | 12,000 | 15,000 | 15,000 |
| Senior PHP Developer | 15,500 | 20,000 | 19,000 |
| RoR Developer | 12,000 | 17,000 | 16,500 |
| Senior RoR Developer | 17,000 | 23,000 | 23,000 |
| Python Developer | 12,000 | 18,000 | 18,500 |
| Senior Python Developer | 17,000 | 22,000 | 25,000 |
| Rust Developer | 10,000 | 14,000 | 15,000 |
| Senior Rust Developer | 16,000 | 19,000 | 22,000 |
| Full Stack Developer | 16,500 | 20,000 | 22,000 |
| Senior Full Stack Developer | 19,000 | 26,000 | 27,000 |
| Golang Developer | 11,000 | 18,000 | 16,000 |
| Senior Golang Developer | 19,000 | 22,000 | 22,000 |
| Blockchain Developer | 17,000 | 30,000 | 23,000 |
| Senior Blockchain Developer | 17,000 | 25,000 | 26,000 |
| RPA Developer | 16,000 | 25,000 | 15,000 |
| Senior RPA Developer | 17,000 | 25,000 | 19,000 |
| Software Engineering Manager | 25,000 | 34,000 | 30,000 |
| Software Development Director/CTO | 33,000 | 40,000 | 38,000 |
| Software Architect | 20,000 | 27,000 | 31,000 |



Salary charts for Łódź

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 13,000 | 17,500 | 17,000 |
| Senior Android Developer | 18,000 | 25,000 | 23,000 |
| iOS Developer | 14,000 | 18,000 | 18,000 |
| Senior iOS Developer | 18,000 | 24,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 10,000 | 13,500 | 13,000 |
| QA Engineer (automation) | 13,500 | 17,500 | 17,500 |
| Senior QA Engineer (automation) | 17,500 | 23,000 | 23,000 |
| QA Lead | 18,000 | 22,000 | 22,000 |
| Test Manager | 19,000 | 24,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 16,000 | 24,000 | 23,000 |
| Senior DevOps (dev background) | 24,000 | 28,000 | 28,000 |
| DevOps (admin background) | 15,000 | 20,000 | 20,000 |
| Senior DevOps (admin background) | 20,000 | 24,000 | 25,000 |
| Site Reliability Engineer | 16,000 | 24,000 | 22,000 |
| Senior Site Reliability Engineer | 24,000 | 30,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Poznań



POPULATION

540,146*



UNEMPLOYMENT

1.1%**



AVERAGE GROSS SALARY

10,731.92 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



**Ozanna
Grausch**

Branch Manager

grafon
Gi Group Holding

New challenges and perspectives in Poznań's IT market

Poznań's IT market, much like its counterparts in Poland's other cities, is shifting from an incredibly dynamic period to a stabilization. While the number of job offers is much smaller than in previous years, we have observed an intense development in areas such as infrastructure or cybersecurity.

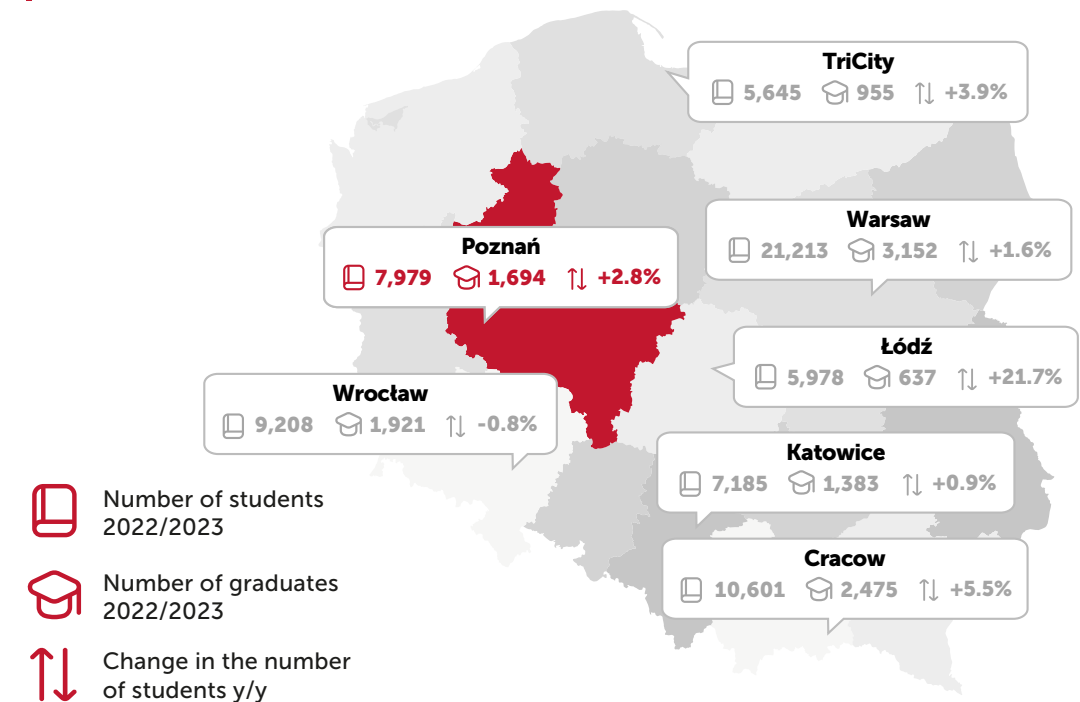
Poznań, being one of the most important service infrastructure maintenance hubs, invests in the development of cloud applications, digital graphics and services enabling fast data transfers. Furthermore, solutions for utilizing cryptocurrencies in entertainment and developing e-commerce tools are appearing.

Many new IT investments are stimulating the city's academic potential and educational offer, resulting in incredibly popular faculties such as AI, automation and robotics or game development.

Poznań's office market has enjoyed the interest of both large, recognizable IT enterprises and smaller, promising tigers. The hybrid work mode allows one to optimally utilize the potential of one's office space and supports the development of prestigious locations.

For Poznań's IT market, 2023 and 2024 were a period of dynamic change. While local businesses haven't been left unscathed by the wave of terminations, one can still observe interest in new investments and future development outlooks.

Academic potential

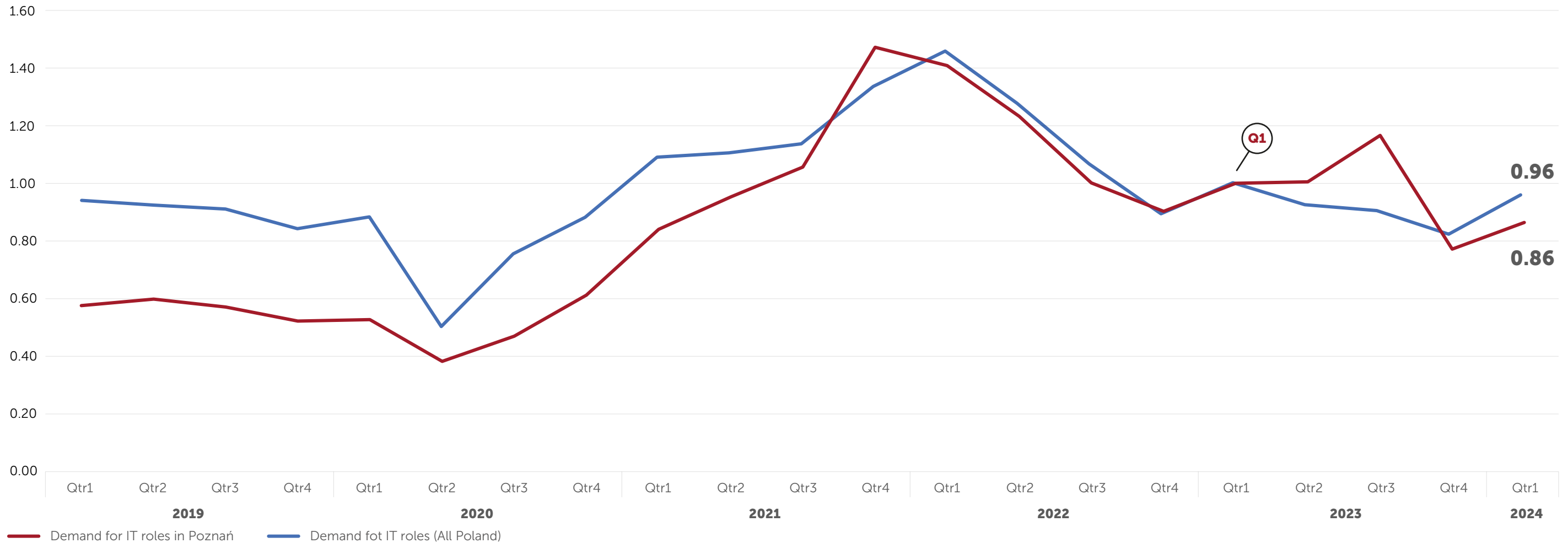


Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Poznań

Demand for IT roles in Poznań
indeks 1 = Q1 2023



Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.

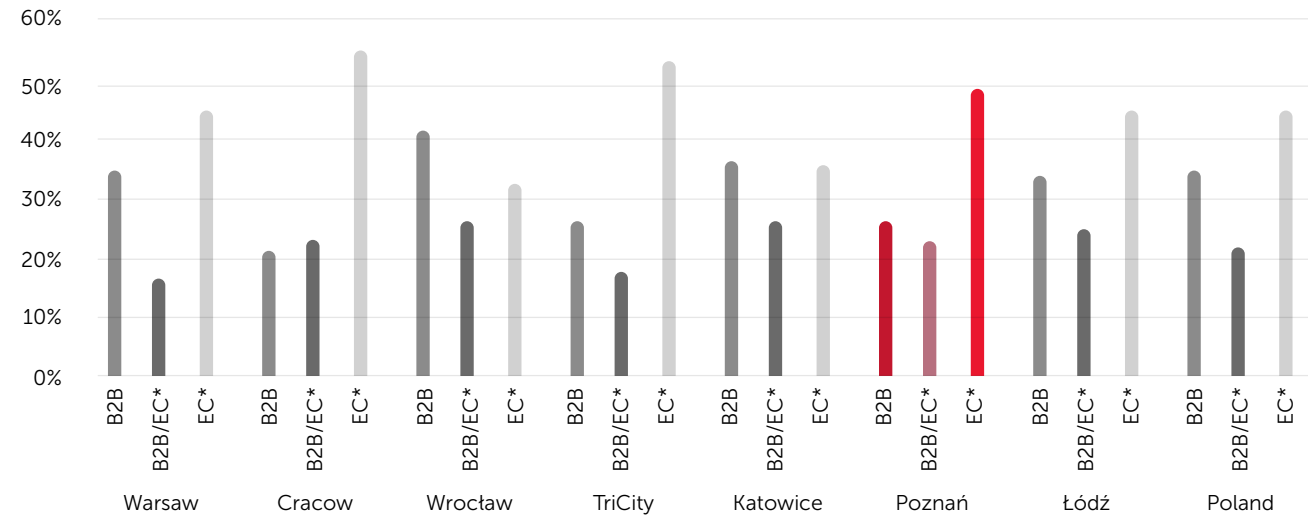
IT jobs in Poznań

In April 2024, half of job offers published by Poznań's IT industry concerned employment based on an Employment Agreement. It's the third of analyzed cities so far, where the percentage share of Employment Agreements strongly exceeds that of B2B contracts.

More than half of the job offers - 56.2% - concerned remote work. Hybrid work placed second. Combined, the two accounted for 94.3% of all analyzed offers.

Salaries in Poznań's IT industry tend to exceed the average gross salary, which according to GUS data amounted to PLN 10,731.92 in March 2024. However, the remuneration for some roles is below or close to this amount.

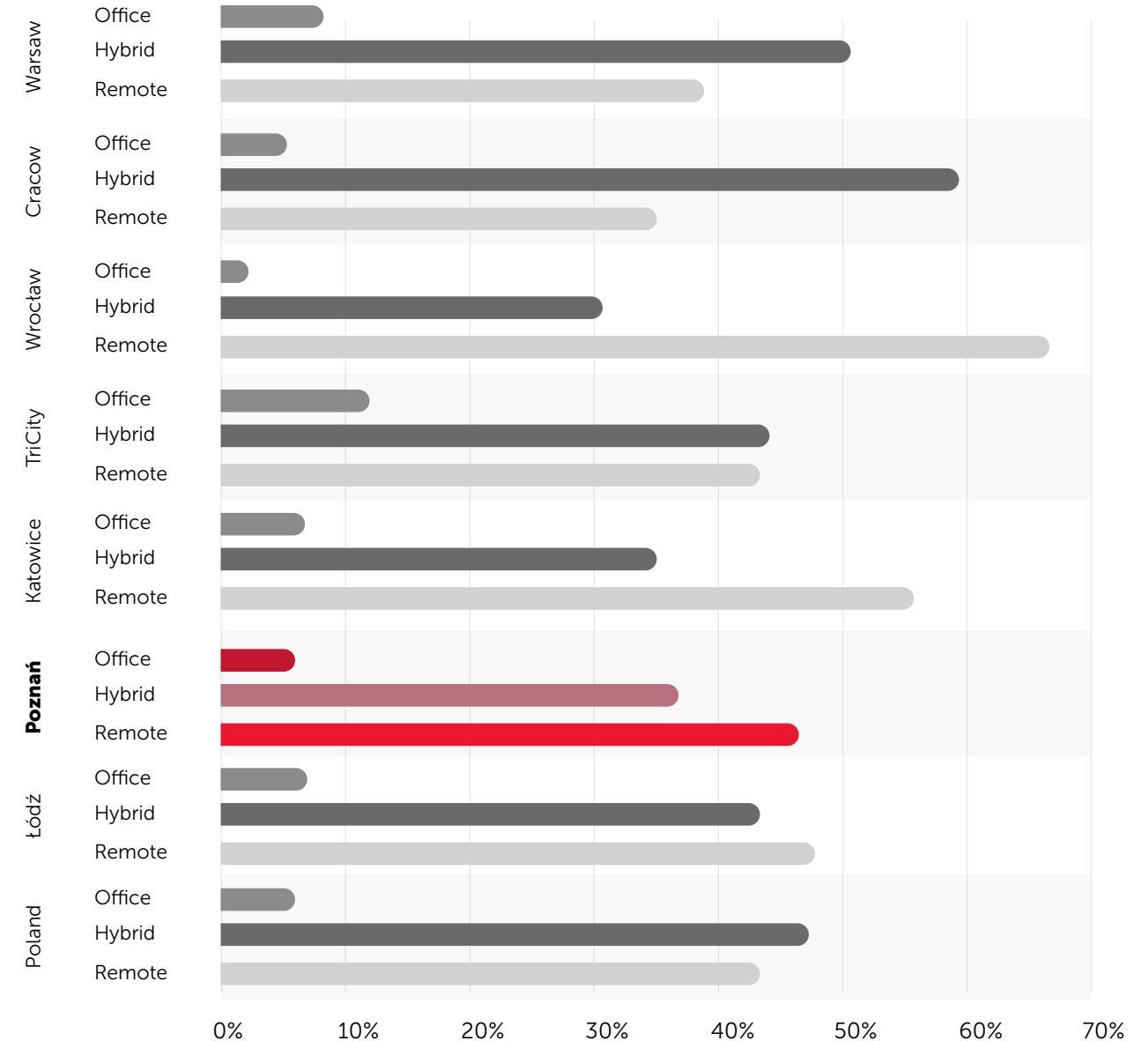
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Salary charts for Poznań

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 6,000 | 7,500 | 7,500 |
| Technical Support 2nd Line | 7,500 | 10,500 | 10,500 |
| Technical Support 3rd Line | 10,000 | 14,500 | 14,500 |
| Service Desk Manager | 16,000 | 20,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 9,500 | 13,500 | 12,000 |
| Applications Support Specialist L3 | 10,500 | 14,500 | 13,500 |
| Application Support Manager | 17,000 | 22,500 | 19,000 |
| Network | | | |
| Network Analyst | 6,500 | 9,000 | 9,000 |
| Network Engineer | 13,000 | 16,000 | 15,000 |
| Network Architect | 16,500 | 22,000 | 22,000 |
| Network Manager | 15,000 | 23,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 12,000 | 17,000 | 17,000 |
| Network Security Engineer | 12,000 | 18,000 | 20,000 |
| Cybersecurity Engineer | 13,000 | 20,000 | 20,000 |
| Cloud Security Engineer | 14,000 | 23,000 | 22,000 |
| Identity & Access Management Engineer | 11,000 | 15,000 | 14,500 |
| Pentester | 17,000 | 25,000 | 25,000 |
| Security Architect | 24,000 | 29,000 | 29,000 |
| Security Manager | 20,000 | 28,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 10,000 | 15,500 | 15,500 |
| Linux/Unix Engineer | 10,000 | 15,500 | 15,500 |
| VMWare Engineer | 12,000 | 18,500 | 16,000 |
| AIX Engineer | 10,000 | 14,500 | 14,500 |
| Database Developer | 12,000 | 18,000 | 17,500 |
| Database Administrator | 10,000 | 15,000 | 15,500 |
| Storage & Backup | 10,000 | 16,000 | 16,000 |
| Infrastructure Architect | 21,000 | 27,000 | 26,000 |
| Infrastructure Manager | 19,500 | 27,000 | 26,500 |



Salary charts for Poznań

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 16,000 | 21,000 | 20,500 |
| SAP Consultant | 17,000 | 24,000 | 23,000 |
| Salesforce Developer | 11,000 | 18,000 | 18,000 |
| Salesforce Consultant | 10,000 | 17,000 | 17,000 |
| SAP Manager | 18,000 | 24,000 | 24,000 |
| SAP Lead/Architect | 25,000 | 30,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 12,000 | 17,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 15,500 | 22,000 | 21,500 |
| Java Developer | 16,000 | 24,000 | 20,000 |
| Senior Java Developer | 24,500 | 29,000 | 25,000 |
| Scala Developer | 14,000 | 19,000 | 17,000 |
| Senior Scala Developer | 18,000 | 25,000 | 23,000 |
| C#/.NET Developer | 14,000 | 18,000 | 18,000 |
| Senior C#/.NET Developer | 18,000 | 25,000 | 24,000 |
| Unity Developer | 12,000 | 16,000 | 15,000 |
| Senior Unity Developer | 16,500 | 20,000 | 19,000 |
| Frontend Developer (JavaScript) | 14,000 | 19,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 19,000 | 25,000 | 24,000 |
| PHP Developer | 12,000 | 16,000 | 15,000 |
| Senior PHP Developer | 16,000 | 20,000 | 19,000 |
| RoR Developer | 12,000 | 18,000 | 16,500 |
| Senior RoR Developer | 17,500 | 23,500 | 23,000 |
| Python Developer | 12,500 | 18,500 | 18,500 |
| Senior Python Developer | 18,500 | 26,000 | 25,000 |
| Rust Developer | 11,500 | 14,500 | 15,000 |
| Senior Rust Developer | 16,000 | 23,000 | 22,000 |
| Full Stack Developer | 16,500 | 22,500 | 22,000 |
| Senior Full Stack Developer | 20,000 | 28,500 | 27,000 |
| Golang Developer | 12,500 | 16,000 | 16,000 |
| Senior Golang Developer | 16,000 | 22,500 | 22,000 |
| Blockchain Developer | 18,500 | 23,000 | 23,000 |
| Senior Blockchain Developer | 21,000 | 26,000 | 26,000 |
| RPA Developer | 10,000 | 16,000 | 15,000 |
| Senior RPA Developer | 18,000 | 20,000 | 19,000 |
| Software Engineering Manager | 22,000 | 28,000 | 30,000 |
| Software Development Director/CTO | 33,000 | 40,000 | 38,000 |
| Software Architect | 23,000 | 31,000 | 31,000 |



Salary charts for Poznań

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 13,000 | 17,000 | 17,000 |
| Senior Android Developer | 18,000 | 23,000 | 23,000 |
| iOS Developer | 13,000 | 18,000 | 18,000 |
| Senior iOS Developer | 18,000 | 24,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 10,000 | 13,000 | 13,000 |
| QA Engineer (automation) | 13,500 | 17,500 | 17,500 |
| Senior QA Engineer (automation) | 17,500 | 23,000 | 23,000 |
| QA Lead | 18,000 | 22,000 | 22,000 |
| Test Manager | 20,000 | 24,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 19,000 | 26,000 | 23,000 |
| Senior DevOps (dev background) | 26,000 | 33,000 | 28,000 |
| DevOps (admin background) | 17,000 | 24,000 | 20,000 |
| Senior DevOps (admin background) | 24,000 | 27,000 | 25,000 |
| Site Reliability Engineer | 16,000 | 23,000 | 22,000 |
| Senior Site Reliability Engineer | 20,000 | 29,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Gdańsk and TriCity



POPULATION

486,492 - Gdańsk

761,495 - TriCity



UNEMPLOYMENT

2.7%**



AVERAGE GROSS SALARY

10,550.31 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



Monika Piątko

Regional Manager

grafton
Gi Group Holding

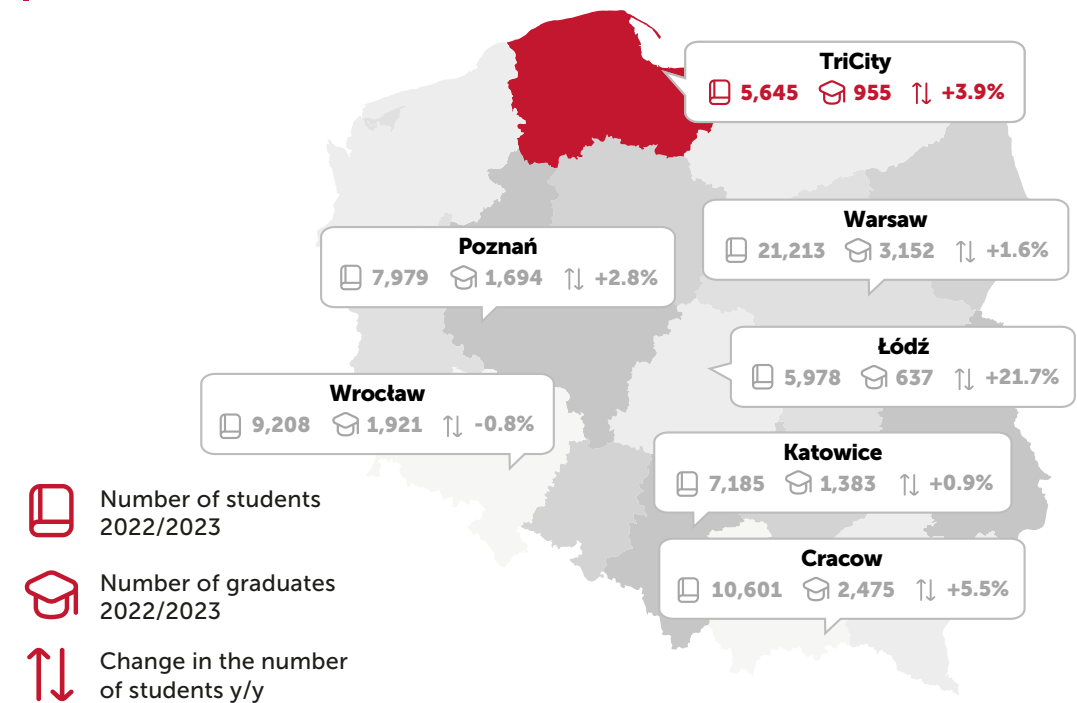
The specificity of Tri-City's IT market attracts candidates

Our observation of the Tri-City's IT market confirms the continued demand for programmer positions. Specialists in the spheres of research & development, IT support and infrastructure management are in increased demand.

Tri-City's market largely consists of numerous product-oriented businesses implementing their own projects. However, we noticed increased employment levels among businesses providing IT services to external clients. It also bears mentioning the presence of some rather specific businesses due to the region's geographic position. The marine and offshore industries offer potential candidates the ability to work on interesting projects, making Gdańsk and Gdynia attractive workplaces for many IT specialists.

Tri-City's businesses are aware of their location's advantages and the uniqueness of their projects. Thus, they're increasingly often organizing events and meetings for the IT sector. The list of events keeps growing each year, attracting even more candidates to the local market.

Academic potential

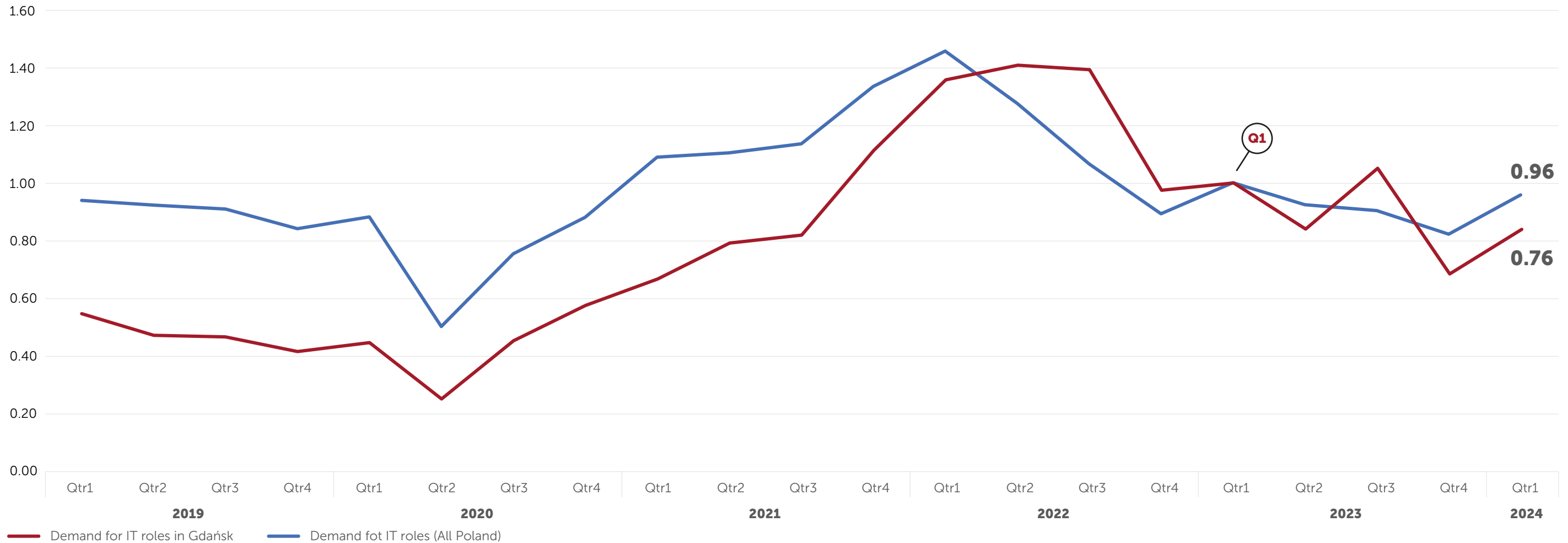


Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Gdańsk

Demand for IT roles in Gdańsk
indeks 1 = Q1 2023



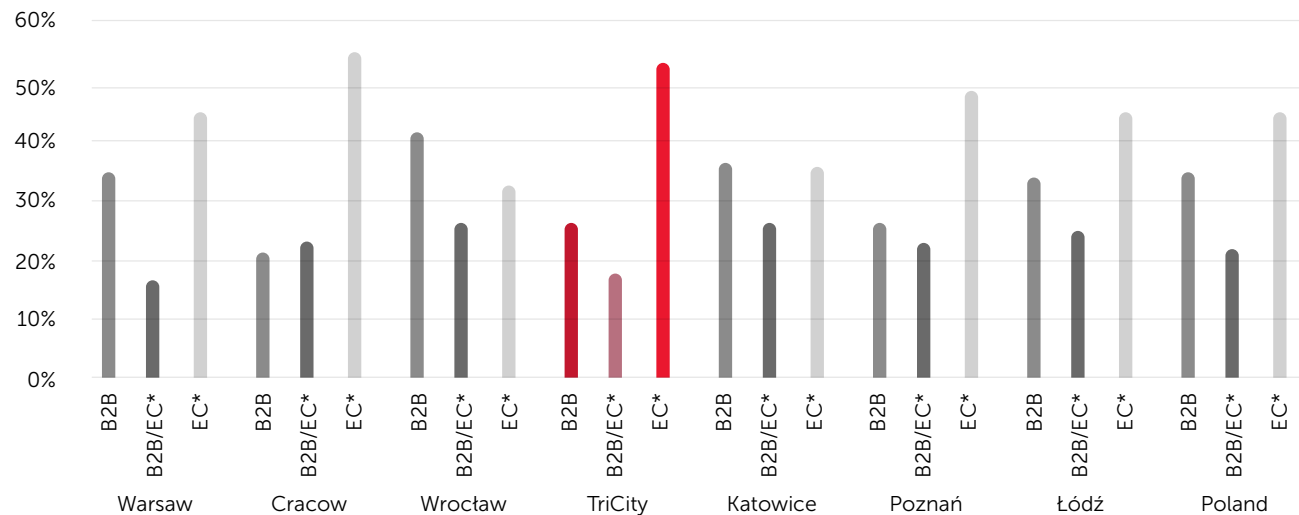
Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.

IT jobs in the Tri-City

The trend of returning to offices has been felt very keenly in the Tri-City. In April 2024, this work mode accounted for 12.8% of all published job offers, marking the highest level among the analyzed cities. However, it bears mentioning that on a national scale, this is still a somewhat low result. While on a local scale, stationary work is having its renaissance, the national IT market remains dominated by flexible work modes.

IT specialists in the Tri-City can expect their pay to exceed the gross average pay for Gdańsk, which according to GUS amounted to PLN 10,550.31 in March 2024. The preferred form of employment for Tri-City's IT industry is the Employment Contract. It accounts for 53% of all published offers, placing Tri-City in a second spot, right behind Cracow, in terms of Employment Agreement predomination.

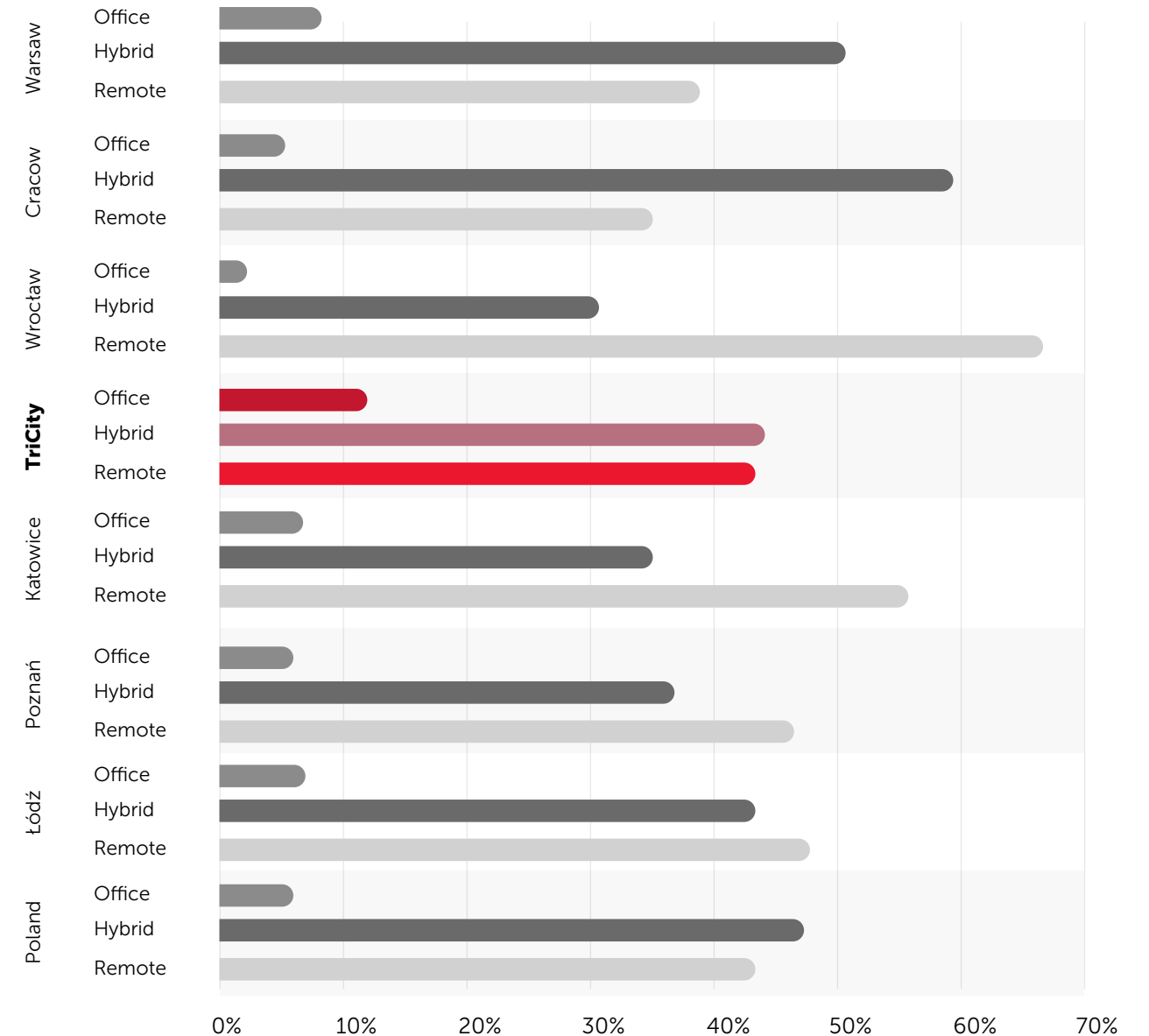
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Salary charts for Gdańsk

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 6,000 | 8,000 | 7,500 |
| Technical Support 2nd Line | 8,000 | 11,000 | 10,500 |
| Technical Support 3rd Line | 10,000 | 14,500 | 14,500 |
| Service Desk Manager | 15,000 | 22,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 9,000 | 14,000 | 12,000 |
| Applications Support Specialist L3 | 10,000 | 14,000 | 13,500 |
| Application Support Manager | 18,000 | 23,000 | 19,000 |
| Network | | | |
| Network Analyst | 6,000 | 10,000 | 9,000 |
| Network Engineer | 10,500 | 16,000 | 15,000 |
| Network Architect | 17,000 | 24,000 | 22,000 |
| Network Manager | 15,000 | 23,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 12,000 | 17,500 | 17,000 |
| Network Security Engineer | 12,000 | 20,000 | 20,000 |
| Cybersecurity Engineer | 13,000 | 20,000 | 20,000 |
| Cloud Security Engineer | 14,000 | 23,000 | 22,000 |
| Identity & Access Management Engineer | 11,000 | 15,000 | 14,500 |
| Pentester | 17,000 | 27,000 | 25,000 |
| Security Architect | 24,000 | 28,000 | 29,000 |
| Security Manager | 22,000 | 28,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 10,000 | 16,000 | 15,500 |
| Linux/Unix Engineer | 10,500 | 16,000 | 15,500 |
| VMWare Engineer | 12,000 | 18,000 | 16,000 |
| AIX Engineer | 10,000 | 15,000 | 14,500 |
| Database Developer | 12,000 | 18,000 | 17,500 |
| Database Administrator | 10,000 | 16,000 | 15,500 |
| Storage & Backup | 11,000 | 16,000 | 16,000 |
| Infrastructure Architect | 21,000 | 27,000 | 26,000 |
| Infrastructure Manager | 20,000 | 27,000 | 26,500 |



Salary charts for Gdańsk

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 16,000 | 22,000 | 20,500 |
| SAP Consultant | 17,000 | 25,000 | 23,000 |
| Salesforce Developer | 11,000 | 18,000 | 18,000 |
| Salesforce Consultant | 11,000 | 20,000 | 17,000 |
| SAP Manager | 17,000 | 24,000 | 24,000 |
| SAP Lead/Architect | 22,000 | 32,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 12,000 | 19,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 16,000 | 23,000 | 21,500 |
| Java Developer | 16,000 | 22,000 | 20,000 |
| Senior Java Developer | 21,000 | 26,000 | 25,000 |
| Scala Developer | 14,000 | 19,000 | 17,000 |
| Senior Scala Developer | 17,000 | 25,000 | 23,000 |
| C#/.NET Developer | 14,000 | 19,000 | 18,000 |
| Senior C#/.NET Developer | 18,000 | 26,000 | 24,000 |
| Unity Developer | 11,000 | 17,000 | 15,000 |
| Senior Unity Developer | 18,000 | 20,000 | 19,000 |
| Frontend Developer (JavaScript) | 14,000 | 19,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 19,000 | 26,000 | 24,000 |
| PHP Developer | 12,000 | 16,000 | 15,000 |
| Senior PHP Developer | 16,000 | 21,000 | 19,000 |
| RoR Developer | 12,000 | 17,000 | 16,500 |
| Senior RoR Developer | 17,000 | 24,000 | 23,000 |
| Python Developer | 11,000 | 19,000 | 18,500 |
| Senior Python Developer | 17,000 | 25,000 | 25,000 |
| Rust Developer | 10,000 | 15,000 | 15,000 |
| Senior Rust Developer | 15,000 | 22,000 | 22,000 |
| Full Stack Developer | 17,000 | 22,000 | 22,000 |
| Senior Full Stack Developer | 20,000 | 28,000 | 27,000 |
| Golang Developer | 12,000 | 17,000 | 16,000 |
| Senior Golang Developer | 16,000 | 22,000 | 22,000 |
| Blockchain Developer | 18,000 | 23,000 | 23,000 |
| Senior Blockchain Developer | 22,000 | 26,000 | 26,000 |
| RPA Developer | 8,500 | 13,000 | 15,000 |
| Senior RPA Developer | 12,000 | 19,000 | 19,000 |
| Software Engineering Manager | 25,000 | 35,000 | 30,000 |
| Software Development Director/CTO | 30,000 | 40,000 | 38,000 |
| Software Architect | 26,000 | 35,000 | 31,000 |



Salary charts for Gdańsk

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 13,000 | 17,000 | 17,000 |
| Senior Android Developer | 18,000 | 23,000 | 23,000 |
| iOS Developer | 13,000 | 18,000 | 18,000 |
| Senior iOS Developer | 18,000 | 23,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 10,000 | 13,000 | 13,000 |
| QA Engineer (automation) | 13,000 | 17,500 | 17,500 |
| Senior QA Engineer (automation) | 17,000 | 24,000 | 23,000 |
| QA Lead | 19,000 | 22,000 | 22,000 |
| Test Manager | 20,000 | 24,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 17,000 | 25,000 | 23,000 |
| Senior DevOps (dev background) | 25,000 | 30,000 | 28,000 |
| DevOps (admin background) | 16,000 | 22,000 | 20,000 |
| Senior DevOps (admin background) | 22,000 | 25,000 | 25,000 |
| Site Reliability Engineer | 16,000 | 22,000 | 22,000 |
| Senior Site Reliability Engineer | 22,000 | 29,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Katowice



POPULATION

279,100*



UNEMPLOYMENT

1.1**



AVERAGE GROSS SALARY

9,289.37 zł**

* GUS – Local Data Bank, June 2023

** GUS – March 2024



Karolina Szkaradnik

Client Relationship
Manager

grafon
Gi Group Holding

New trends on the Silesian IT market

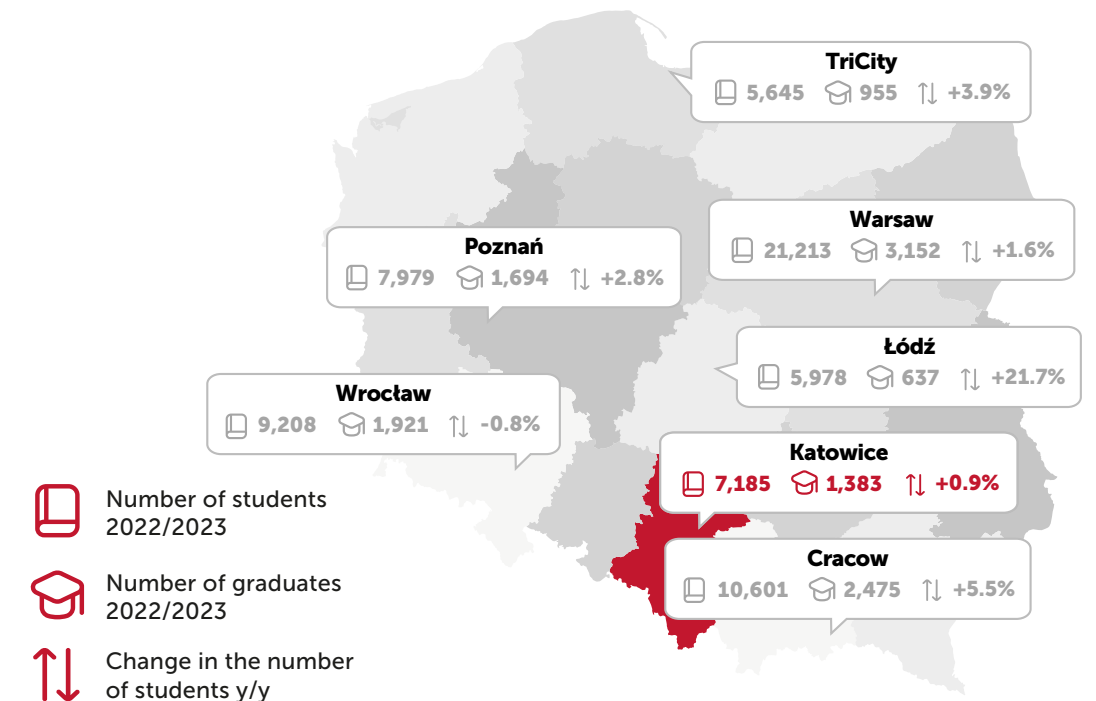
Over the past dozen or so years, Katowice, the beating heart of Metropolis GZM, has been undergoing a dynamic transformation from an industrial city to a hub for modern business services, R&D centers and the IT industry. An example of investment linking tradition and technology is the development of Katowice's Gaming-Technological Hub in the former KWK Wieczorek mine. The hub will provide a development space for video game producers and the e-sport community. It will house recording studios, modern laboratories, extensive IT infrastructure, office space and other amenities.

The access to a large selection of IT experts and the strong academic potential of Silesia's universities continuously attract foreign IT investors to the region. However, one could observe the changes shaping Silesia's IT market as early as H2 2023. We are due for a slowdown due to a lower number of investor inquiries as compared to previous years - we don't expect a new major IT player, employing over 100 people, to enter the market in the foreseeable future.

While the local market remains open and absorptive for employing high-class IT specialists, neither developers nor testers are the most sought-after profiles. The demand is currently increasing for the spheres of machine learning, artificial intelligence, data engineering, cloud solutions, cybersecurity and ERP.

A notable change between 2024 and previous years is the increased employee retention. According to the talks with our clients, the turnover rate for the IT industry has fallen by 10-15%. Undoubtedly, it has been caused by the lower number of available job offers arising from the crisis faced by the IT industry as

Academic potential



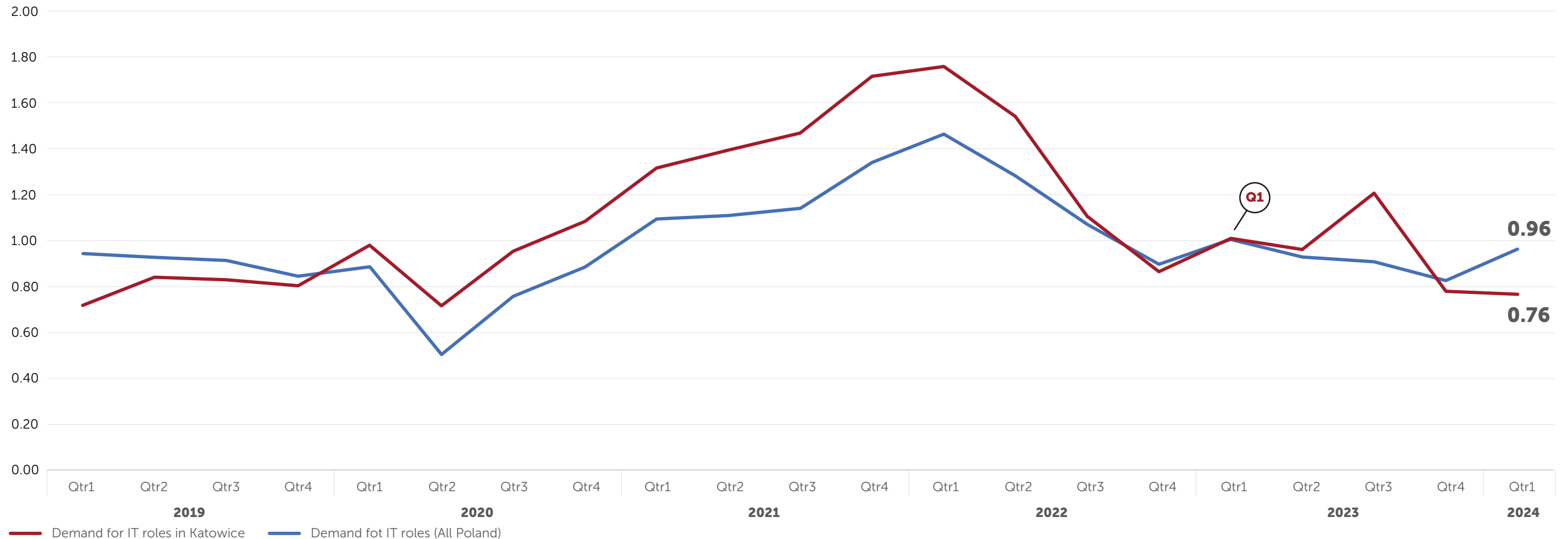
Source: GUS data Higher education in the 2022/2023 academic year (preliminary results)



Demand for IT roles in Katowice

Demand for IT roles in Katowice

indeks 1 = Q1 2023



Source: Grafton Recruitment, analysis conducted on data from the most popular job portal in Poland. Complete data set for the researched period n = 4,345,657. IT job offers separated for analysis n = 334,658. The analyzed roles were selected based on the selection for the salary charts. Data indexed against the Q1 2023 period, meaning that for example, a value of 1.11 in the Q1 2024 period means an 11% increase in the number of job offers between the analyzed periods.

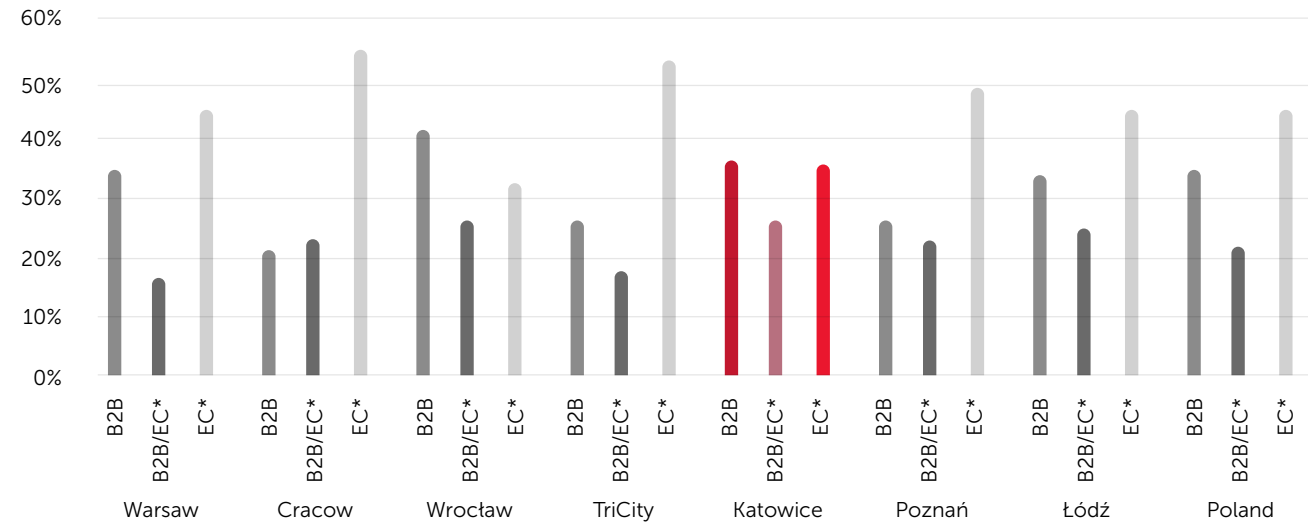
IT jobs in in Katowice

Katowice's IT market is highly flexible as to the available forms of employment. The employers are offering Employment Agreements and B2B contracts similarly often. Moreover, many of the offers allow the employee to choose their preferred form of employment.

This flexibility is also visible when in terms of work modes. Remote work predominates and combined with hybrid work accounts for over 92% of all offers.

IT salaries remain higher than the average gross pay in Katowice which, according to GUS data, amounted to PLN 9,289.37 in March 2024.

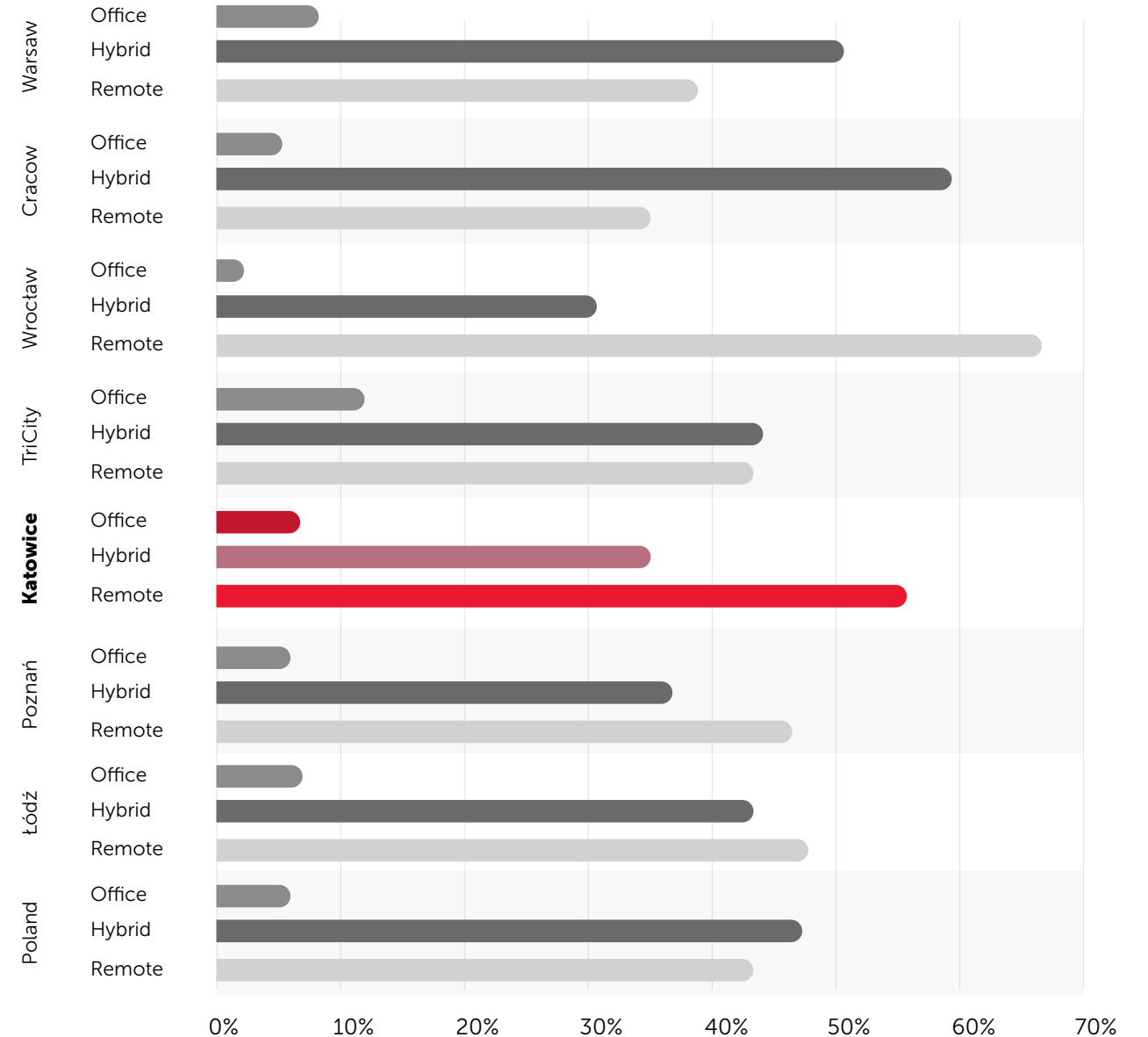
Contract types



*Source: Grafton Recruitment, analysis conducted on data comes from a specialist job portal for IT experts. The analysis covers offers published in April 2024 (n-2902).

**EC - Employment Contract

Work modes





Salary charts for Katowice

| | min | max | NO |
|------------------------------------|--------|--------|--------|
| Service Desk | | | |
| Technical Support 1st Line | 6,000 | 8,000 | 7,500 |
| Technical Support 2nd Line | 7,000 | 12,000 | 10,500 |
| Technical Support 3rd Line | 10,000 | 14,000 | 14,500 |
| Service Desk Manager | 16,000 | 20,000 | 19,000 |
| Applications Management | | | |
| Applications Support Specialist L2 | 10,000 | 13,500 | 12,000 |
| Applications Support Specialist L3 | 10,000 | 14,000 | 13,500 |
| Application Support Manager | 16,000 | 20,000 | 19,000 |
| Network | | | |
| Network Analyst | 7,000 | 9,000 | 9,000 |
| Network Engineer | 12,000 | 18,000 | 15,000 |
| Network Architect | 16,000 | 22,000 | 22,000 |
| Network Manager | 18,000 | 24,000 | 23,000 |

| | min | max | NO |
|---------------------------------------------|--------|--------|--------|
| Security | | | |
| Security Engineer | 12,000 | 19,000 | 17,000 |
| Network Security Engineer | 13,000 | 22,000 | 20,000 |
| Cybersecurity Engineer | 14,000 | 22,000 | 20,000 |
| Cloud Security Engineer | 16,000 | 24,000 | 22,000 |
| Identity & Access Management Engineer | 11,000 | 15,000 | 14,500 |
| Pentester | 20,000 | 25,000 | 25,000 |
| Security Architect | 24,000 | 29,000 | 29,000 |
| Security Manager | 20,000 | 28,000 | 28,000 |
| System and Infrastructure management | | | |
| Windows Engineer | 10,000 | 16,000 | 15,500 |
| Linux/Unix Engineer | 10,000 | 16,000 | 15,500 |
| VMWare Engineer | 13,000 | 18,000 | 16,000 |
| AIX Engineer | 10,000 | 16,000 | 14,500 |
| Database Developer | 13,000 | 20,000 | 17,500 |
| Database Administrator | 11,000 | 16,000 | 15,500 |
| Storage & Backup | 11,000 | 16,000 | 16,000 |
| Infrastructure Architect | 21,000 | 27,000 | 26,000 |
| Infrastructure Manager | 20,000 | 27,000 | 26,500 |



Salary charts for Katowice

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| SAP | | | |
| SAP Developer | 16,000 | 22,000 | 20,500 |
| SAP Consultant | 17,000 | 25,000 | 23,000 |
| Salesforce Developer | 12,000 | 20,000 | 18,000 |
| Salesforce Consultant | 12,000 | 20,000 | 17,000 |
| SAP Manager | 18,000 | 24,000 | 24,000 |
| SAP Lead/Architect | 25,000 | 30,000 | 28,000 |
| Software Development | | | |
| Embedded Software Developer (C/C++) | 12,000 | 17,000 | 15,500 |
| Senior Embedded Software Developer (C/C++) | 18,000 | 23,000 | 21,500 |
| Java Developer | 16,000 | 22,000 | 20,000 |
| Senior Java Developer | 22,000 | 28,000 | 25,000 |
| Scala Developer | 14,000 | 19,000 | 17,000 |
| Senior Scala Developer | 20,000 | 25,000 | 23,000 |
| C#/.NET Developer | 14,000 | 19,000 | 18,000 |
| Senior C#/.NET Developer | 19,000 | 25,000 | 24,000 |
| Unity Developer | 12,000 | 16,000 | 15,000 |
| Senior Unity Developer | 16,000 | 20,000 | 19,000 |
| Frontend Developer (JavaScript) | 14,000 | 21,000 | 18,000 |

| | min | max | NO |
|----------------------------------------|--------|--------|--------|
| Software Development | | | |
| Senior Frontend Developer (JavaScript) | 21,000 | 26,000 | 24,000 |
| PHP Developer | 12,000 | 17,000 | 15,000 |
| Senior PHP Developer | 17,000 | 22,000 | 19,000 |
| RoR Developer | 13,000 | 19,000 | 16,500 |
| Senior RoR Developer | 19,000 | 26,000 | 23,000 |
| Python Developer | 13,000 | 19,000 | 18,500 |
| Senior Python Developer | 19,000 | 27,000 | 25,000 |
| Rust Developer | 12,000 | 17,000 | 15,000 |
| Senior Rust Developer | 17,000 | 24,000 | 22,000 |
| Full Stack Developer | 16,000 | 24,000 | 22,000 |
| Senior Full Stack Developer | 23,000 | 29,000 | 27,000 |
| Golang Developer | 13,000 | 17,000 | 16,000 |
| Senior Golang Developer | 17,000 | 23,000 | 22,000 |
| Blockchain Developer | 18,000 | 24,000 | 23,000 |
| Senior Blockchain Developer | 24,000 | 28,000 | 26,000 |
| RPA Developer | 10,000 | 16,000 | 15,000 |
| Senior RPA Developer | 16,000 | 22,000 | 19,000 |
| Software Engineering Manager | 24,000 | 30,000 | 30,000 |
| Software Development Director/CTO | 30,000 | 40,000 | 38,000 |
| Software Architect | 25,000 | 32,000 | 31,000 |



Salary charts for Katowice

| | min | max | NO |
|----------------------------------|--------|--------|--------|
| Mobile Development | | | |
| Android Developer | 14,000 | 18,000 | 17,000 |
| Senior Android Developer | 18,000 | 24,000 | 23,000 |
| iOS Developer | 15,000 | 19,000 | 18,000 |
| Senior iOS Developer | 19,000 | 25,000 | 24,000 |
| Quality Assurance/Testing | | | |
| QA Engineer (manual) | 10,000 | 15,000 | 13,000 |
| QA Engineer (automation) | 13,000 | 19,000 | 17,500 |
| Senior QA Engineer (automation) | 19,000 | 24,000 | 23,000 |
| QA Lead | 19,000 | 23,000 | 22,000 |
| Test Manager | 20,000 | 26,000 | 24,000 |

| | min | max | NO |
|-----------------------------------------------------|--------|--------|--------|
| Continuous Integration / Continuous Delivery | | | |
| DevOps (dev background) | 17,000 | 24,000 | 23,000 |
| Senior DevOps (dev background) | 24,000 | 30,000 | 28,000 |
| DevOps (admin background) | 15,000 | 20,000 | 20,000 |
| Senior DevOps (admin background) | 20,000 | 24,000 | 25,000 |
| Site Reliability Engineer | 16,000 | 24,000 | 22,000 |
| Senior Site Reliability Engineer | 24,000 | 32,000 | 29,000 |



Salary charts for Poland

We have separated the roles for which the employer's location is unimportant. The specialists in these areas can expect similar rates regardless of whether they're working remotely or in an office in any Polish city.

| | min | max | NO |
|-----------------------------------|--------|--------|--------|
| Project Management | | | |
| PMO | 9,000 | 14,000 | 11,000 |
| Project Manager | 20,000 | 25,000 | 24,000 |
| Program Manager | 25,000 | 32,000 | 29,000 |
| Program Director | 30,000 | 38,000 | 35,000 |
| Cross-functional positions | | | |
| Release Manager | 16,000 | 21,000 | 19,000 |
| Service Delivery Manager | 19,000 | 25,000 | 23,000 |
| Business System Analyst | 16,000 | 21,000 | 18,000 |
| Business Analyst | 15,000 | 20,000 | 17,000 |
| Technical Writer | 12,000 | 16,000 | 14,000 |
| Scrum Master | 18,000 | 24,500 | 22,000 |
| People Leader | 14,000 | 19,000 | 17,000 |
| Technical Lead | 25,000 | 35,000 | 32,000 |
| Solution Architect | 26,000 | 32,000 | 31,000 |
| Enterprise Architect | 26,000 | 34,000 | 32,000 |

| | min | max | NO |
|------------------------------|--------|--------|--------|
| Product design | | | |
| Graphic Designer | 11,000 | 17,000 | 15,000 |
| UI/UX Designer | 14,000 | 20,000 | 17,000 |
| Product Owner | 16,000 | 25,000 | 22,000 |
| Product Manager | 17,000 | 26,000 | 25,000 |
| Product Development Director | 25,000 | 32,000 | 30,000 |
| Data: | | | |
| ETL Engineer | 17,000 | 24,000 | 22,000 |
| Data Engineer | 19,000 | 26,000 | 24,000 |
| BigData Developer | 26,000 | 32,000 | 28,000 |
| Data Scientist | 20,000 | 27,000 | 24,000 |
| Data Analyst | 16,000 | 22,000 | 20,000 |
| Data Architect | 27,000 | 33,000 | 31,000 |



Salary charts for Poland

| | min | max | NO |
|--------------------------------------------|--------|--------|--------|
| AI&Machine Learning: | | | |
| Machine Learning Engineer | 20,000 | 26,000 | 24,000 |
| NLP Engineer | 19,000 | 25,000 | 22,000 |
| Computer Vision Engineer | 19,000 | 25,000 | 23,000 |
| AI Engineer | 21,000 | 26,000 | 24,000 |
| AI Scientist | 22,000 | 27,000 | 26,000 |
| GenAI Engineer | 22,000 | 27,000 | 24,000 |
| MLOps Engineer | 23,000 | 28,000 | 25,000 |
| AI Architect | 29,000 | 35,000 | 33,000 |
| Cloud development (AWS, Azure, GCP) | | | |
| Cloud Engineer | 22,000 | 28,000 | 25,000 |
| Cloud Developer | 28,000 | 33,000 | 30,000 |
| Cloud Architect | 30,000 | 37,000 | 34,000 |

Key conclusions from the report



+3.3%

- average salary increase for the researched IT jobs.



+5.1%

- the increase in the number of students in IT faculties of Polish universities year to year.



No change

We haven't observed any notable changes, neither increase or decrease in the number of IT job offers in Q1 2023, as compared to Q1 2024.



Hybrid work model

is the most commonly offered work mode, aside from fully remote work. While we've been hearing about returns to offices increasingly often, the hybrid and remote models are proposed in 92.2% of IT job offers.



45.3%

- of analyzed IT job offers nationwide offered employment contracts and 21.7% allowed a choice between B2B and employment contracts.



AI & Machine Learning

IT workers specializing in these areas enjoy the largest amount of job offers.



We welcome you to
get in touch with us.

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