



JOB POSTING DASHBOARD

TO ANALYSE JOB TRENDS

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Introduction

In the fast-changing job market of today, it is crucial for both job seekers and employers to comprehend recruitment patterns, industry demands, and salary trends. Utilizing data analysis can offer important insights into these dynamics, aiding in making informed decisions about hiring and career advancement. This article examines data from LinkedIn job postings for the years 2023-2024, diving into Key Performance Indicators (KPIs) to discover important trends and metrics that impact today's job market.

Mission

Our mission was to analyze job trends, focusing on salaries, skills, and hiring companies. While salary data had many null fields due to non-disclosure, we identified key in-demand job titles, skills, top hiring companies, and booming job markets across different locations.

Objectives

The primary aim of this analysis is to extract actionable insights from job posting data, enabling stakeholders to make informed decisions. Specifically, we aim to:

- Identify the most in-demand job roles across various industries.
- Analyze salary trends by industry and job title to benchmark compensation.
- Highlight geographical hotspots for job opportunities to assist job seekers and employers alike.

Key Questions on the Data

To guide our analysis, we have formulated three key questions:

1. What are the most frequently posted job titles, and how do they vary by location?

2. How do average salaries differ by industry and job title?
3. Which companies are actively hiring, and what patterns can we observe in their job postings?

Importance of Selecting This Dataset

The chosen dataset offers a unique perspective on current job market trends. Its ideal size allows for comprehensive analysis without overwhelming complexity. The real-world data it provides is rich in insights about recruitment patterns and in-demand skills, serving as a valuable resource for potential candidates aiming to align their skill sets with market demands. Additionally, the dataset includes various fields such as salary ranges, experience levels, and required skills, facilitating complex analysis and drawing meaningful conclusions about the job market.

Key Performance Indicators (KPIs)

Total Number of Job Postings

This KPI was chosen because it serves as a fundamental measure of activity in the job market. It allows us to track which companies, industries, or locations are most active in hiring, providing insights into overall market trends and demand for talent.

Average Salary by Industry and Job Title

This KPI helps organizations benchmark their compensation against industry standards, ensuring they remain competitive in attracting and retaining talent.

Job Postings by Role

This KPI provides clear information about which roles are most in-demand in the current job market. It can indicate trends in industry needs and skill requirements.

Job Postings by Location

This KPI highlights geographical hotspots for job opportunities. This information is valuable for job seekers considering relocation and for companies to understand where talent competition might be most intense.

Most Frequent Job Titles

This KPI shows the most active job titles in the market. It provides insights into the roles that are being actively recruited, helping job seekers target their applications effectively.

Active Hiring Companies

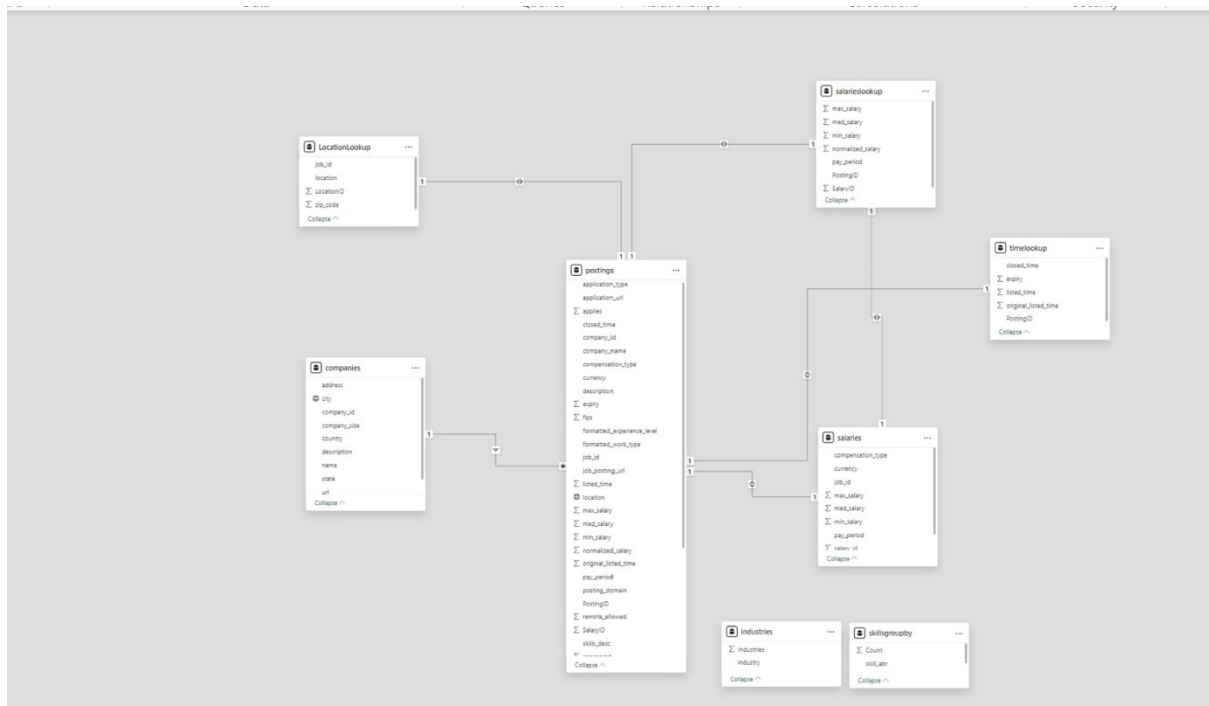
This KPI identifies the most active companies in the job market. This information is valuable for job seekers targeting specific employers and for understanding which companies are expanding or potentially growing.

Data Model in Relational Database

Data Model

The data model utilized for this analysis consists of several interconnected tables, including job postings, companies, locations, salary ranges, and industries. This structure allows us to explore relationships between different data points, such as how salary varies by industry and how job postings fluctuate by location.

This structured approach allows for efficient querying and analysis of the data.



Purpose and Goals

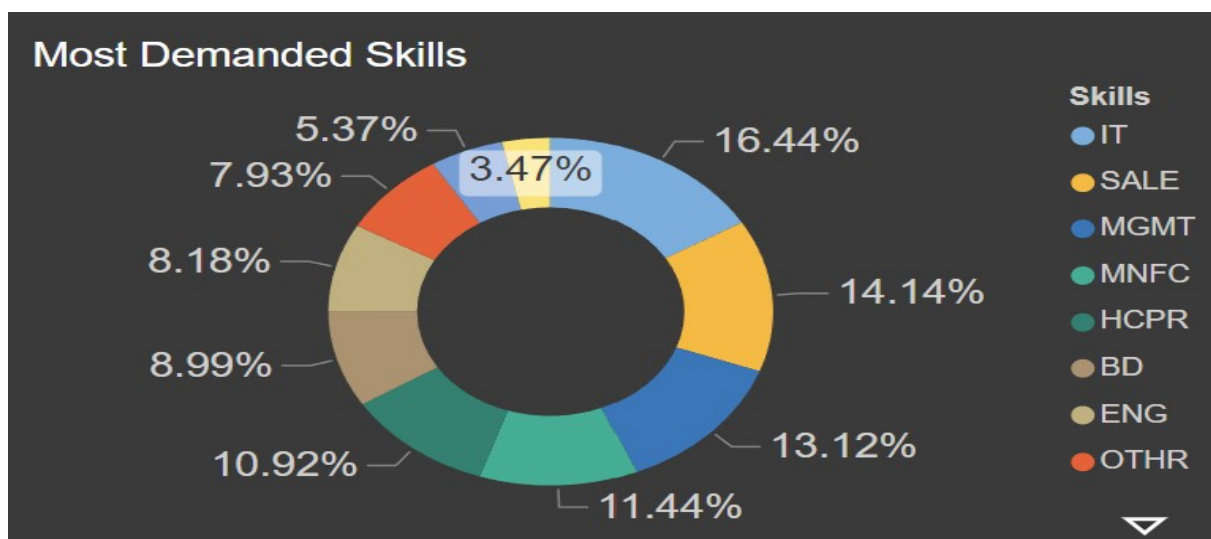
The primary purpose of this analysis is to understand current job market trends, recruitment patterns, and salary comparisons across different companies and job titles. By leveraging real-world data, we aim to provide insights that can assist job seekers, employers, and industry analysts in making informed decisions.

Analysis of Data Visualization

Based on the analysis, we anticipate the following insights:

- **Graphical Analysis of Job Postings:**
 - Visual representations of job postings by industry, location, and role will highlight trends and provide clarity on the job market landscape.
- **Salary Comparison by Company:**
 - A comparative analysis of salaries offered by different companies for similar roles will reveal disparities and help job seekers make informed decisions regarding potential employers.
- **Most Demanded Skills in the Job Market**

The visual representation of the most demanded skills in the job market is a vital insight for job seekers and employers alike. It provides a clear overview of the skills that are currently in high demand based on job postings analysed from LinkedIn. Below is a breakdown of the data shown in the visual:



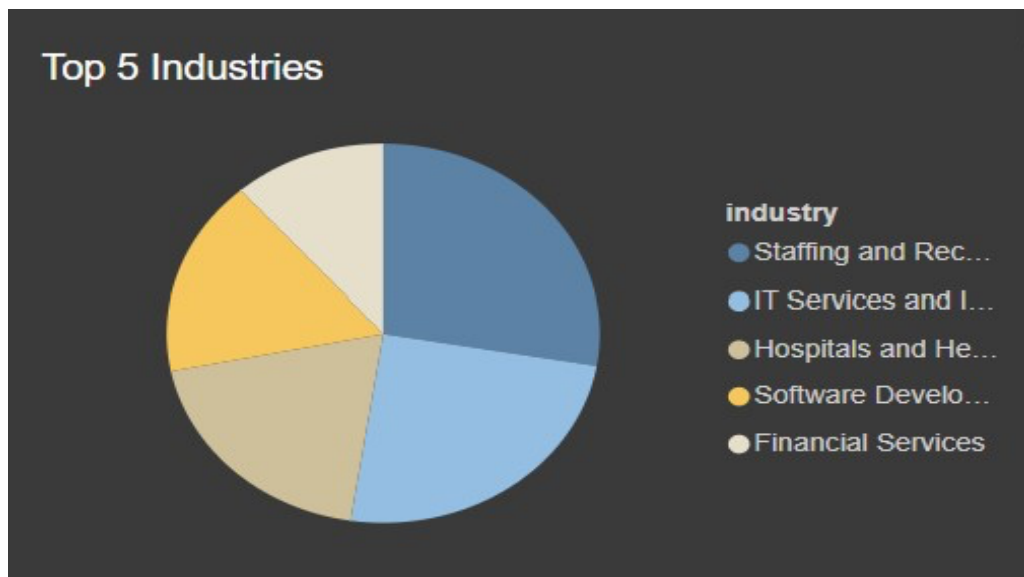
- **Skill Distribution:** The chart is divided into segments representing different skills sought after by employers. Each segment's size corresponds to the percentage of job postings that require that particular skill.

Leading Skills:

- **IT Skills (16.44%):** The most sought-after skill, highlighting the growing importance of technology in various industries. This trend indicates that candidates with IT skills are likely to have more job opportunities.

- **Sales Skills** (14.14%): A close second, reflecting the ongoing need for professionals who can drive revenue and manage client relationships effectively.
- **Management Skills** (13.12%): Demonstrating the importance of leadership capabilities, this category indicates that employers are looking for candidates who can oversee teams and projects efficiently.
- **Manufacturing Skills** (MNFC) (11.44%): A significant demand in sectors such as production and logistics, showing that practical skills in manufacturing are still relevant.
- **Healthcare Professional Skills** (HCPR) (10.92%): This reflects the continuous need for healthcare workers, particularly in the wake of recent global health crises.
- **Other Skills** (ENG, BD, OTHR) (totalling percentages like 8.99%, 7.93%, etc.): This category encompasses various additional skills that employers value, including engineering, business development, and other specialized skills.
- **Implications for Job Seekers:** Understanding the most demanded skills enables job seekers to tailor their resumes and professional development efforts. By focusing on acquiring these in-demand skills, candidates can enhance their employability and align themselves with market needs.
- **Implications for Employers:** For employers, this data serves as a guide for recruitment strategies. It highlights areas where there may be a talent shortage and indicates the skills that should be prioritized in training and development programs.
- **The "Top 5 Industries"**

The Pie chart provides a clear visual representation of the most active sectors in the job market based on the number of job postings. The breakdown is as follows:



1. **Staffing and Recruiting:**

- This sector holds the largest share, indicating that many companies are utilizing staffing and recruitment agencies to fill a variety of roles. This reflects both the high demand for flexible hiring solutions and the ongoing need for talent across different industries.

2. **IT Services and Information Technology:**

- With technology continuing to dominate business operations, IT services come in second. The demand for roles such as IT support, software engineers, and network administrators remains consistently high, driven by the digital transformation of many industries.

3. **Hospitals and Healthcare:**

- Healthcare maintains a significant portion of job postings, demonstrating the critical demand for medical and support staff. This is particularly evident with ongoing public health concerns and the increasing importance of healthcare services worldwide.

4. **Software Development:**

- Software development takes a notable share, reflecting the growing need for custom software solutions, app development, and systems integration across businesses. The rise of automation, AI, and data-driven decision-making has further accelerated demand in this sector.

5. **Financial Services:**

- Financial services continue to offer strong employment opportunities, with banks, investment firms, and insurance companies looking for talent to manage finances, investments, and risk. This steady sector underscores its resilience and ongoing evolution in the digital age.

- **Total Jobs Posted and Average Salary**

Total Jobs Posted – 123.85K:

This number highlights the total volume of job listings available within the dataset. A total of 123.85K job postings indicate a vibrant and active job market, providing a wide range of opportunities for job seekers across various industries, locations, and roles. This KPI is essential in understanding the overall hiring activity and demand for talent. With such a high number of openings, job seekers can expect a competitive market where employers are eager to attract qualified candidates.

The large volume also suggests the importance of recruitment efforts in fast-growing sectors and signals opportunities for those looking to switch careers, gain new skills, or find roles in specific, high-demand industries.

Average Salary – 91.94K:

An average salary of 91.94K provides a benchmark for job seekers and employers alike. It signals the compensation trends across different industries and roles, allowing potential employees to gauge the competitiveness of their salary expectations. For employers, it highlights the market rate for talent, helping them adjust their offerings to remain attractive in recruiting the best candidates.

This salary metric is particularly useful for job seekers, as it gives them a sense of what the market is willing to pay for certain positions, experience levels, or skills. Higher-paying industries or specialized job roles can be further explored based on this average, aiding candidates in making more informed career decisions.



Result

Analysis observations:

- This question seeks to identify which sectors are experiencing the most hiring activity and where these opportunities are concentrated geographically.

Based on the analysis of job postings, the **Staffing and Recruitment** industry has the most hiring activity, followed closely by **IT Services and Infrastructure**, **Hospitals and Healthcare**, **Software Development**, and **Financial Services**. These top five industries dominate the market, as shown in the pie chart visualizing the distribution of job postings.

Geographically, job opportunities are primarily concentrated in **North America**, followed by less postings in **Europe** and **Asia**. Cities with a high volume of job postings are located in urban centres within these regions, indicating where job seekers might focus their efforts for the best opportunities. This concentration highlights the competitive nature of these locations and industries.

- This analysis will help determine if there are significant salary discrepancies among roles and whether certain companies offer more competitive compensation.

From the dashboard, we observe that the **average salary across all job postings is \$91.94K**, though this number can fluctuate significantly depending on the job title and company. Certain roles in **IT and software development** tend to offer higher salary ranges, while industries like **staffing** or **healthcare** have more varied salary brackets depending on the job's complexity or level of experience required.

Companies that are most active in the job market, like **The Job Network**, **Lowe's**, and **Capital One**, also vary in compensation, with tech-oriented companies generally offering more competitive salaries compared to other sectors. This trend reflects the high demand for technical skills in the market.

- Understanding the demand for specific skills will help guide job seekers in aligning their qualifications with market needs.

The most in-demand skills identified from the analysis are **IT skills**, which constitute around **16.44%** of all job postings, followed by **sales skills (14.14%)**, **management skills (13.12%)**, and **engineering skills (10.92%)**. Skills related to **healthcare professions** and **business development** also have notable demand.

This indicates that employers are prioritizing candidates with technical expertise, particularly in IT and engineering, while also seeking strong capabilities in management and sales. The demand for these skills highlights where job seekers can focus their training or upskilling efforts to increase their marketability in the competitive job market.

Conclusion

This analysis of job posting data from LinkedIn for 2023-2024 provides a comprehensive overview of the current job market landscape. By examining key metrics and KPIs, we gain valuable insights into industry demands, salary trends, and geographical hotspots for job opportunities. As the job market continues to evolve, leveraging data analysis will be essential for both job seekers and employers in making informed decisions.

Appendices

Appendix:

Appendix A: Dataset Selection

The dataset used in this report was scraped from LinkedIn and contains detailed information about job postings from 2023 to 2024. It includes key variables such as job titles, company names, locations, salaries, and required skills. The dataset was chosen for its real-world relevance, offering a snapshot of the current job market. The variety of fields allowed us to perform in-depth analysis on multiple aspects of the market, including job availability, salary ranges, and skill demands. The dataset's size was optimal for our analysis—it was neither too large to handle computationally nor too small to lack valuable insights.

Appendix B: Data Model

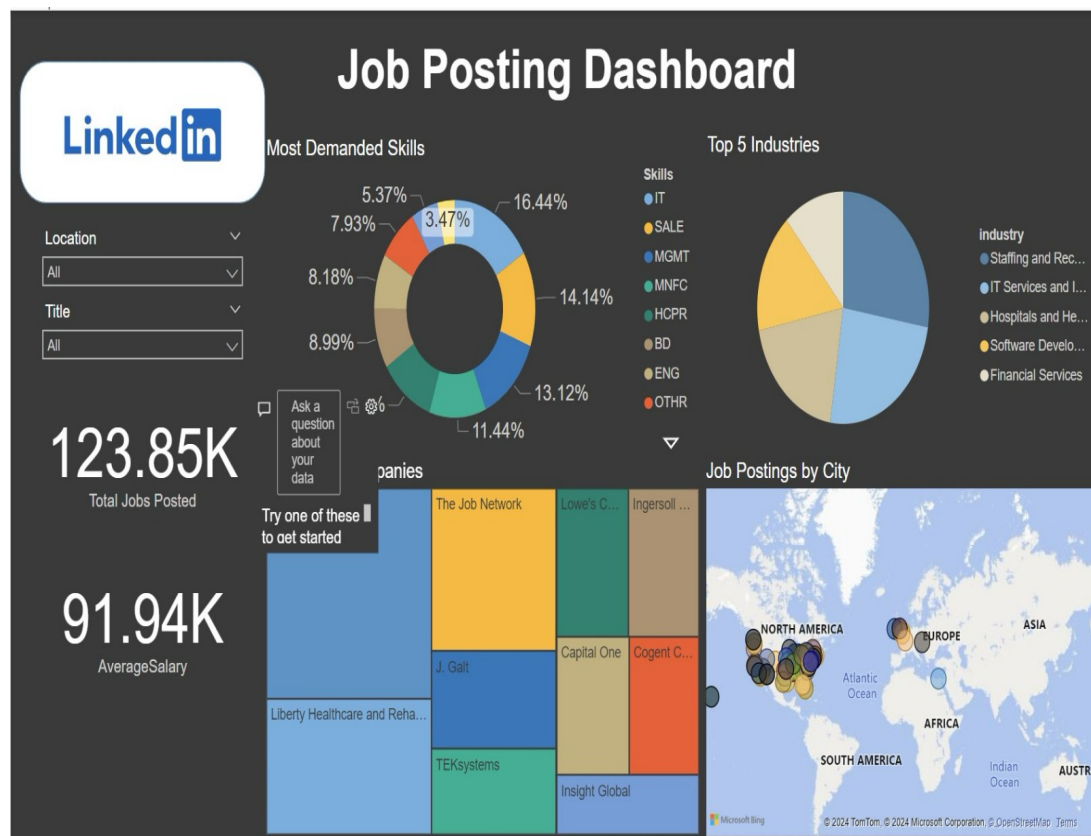
The given above relationships and fields were modelled to analyse the data effectively.

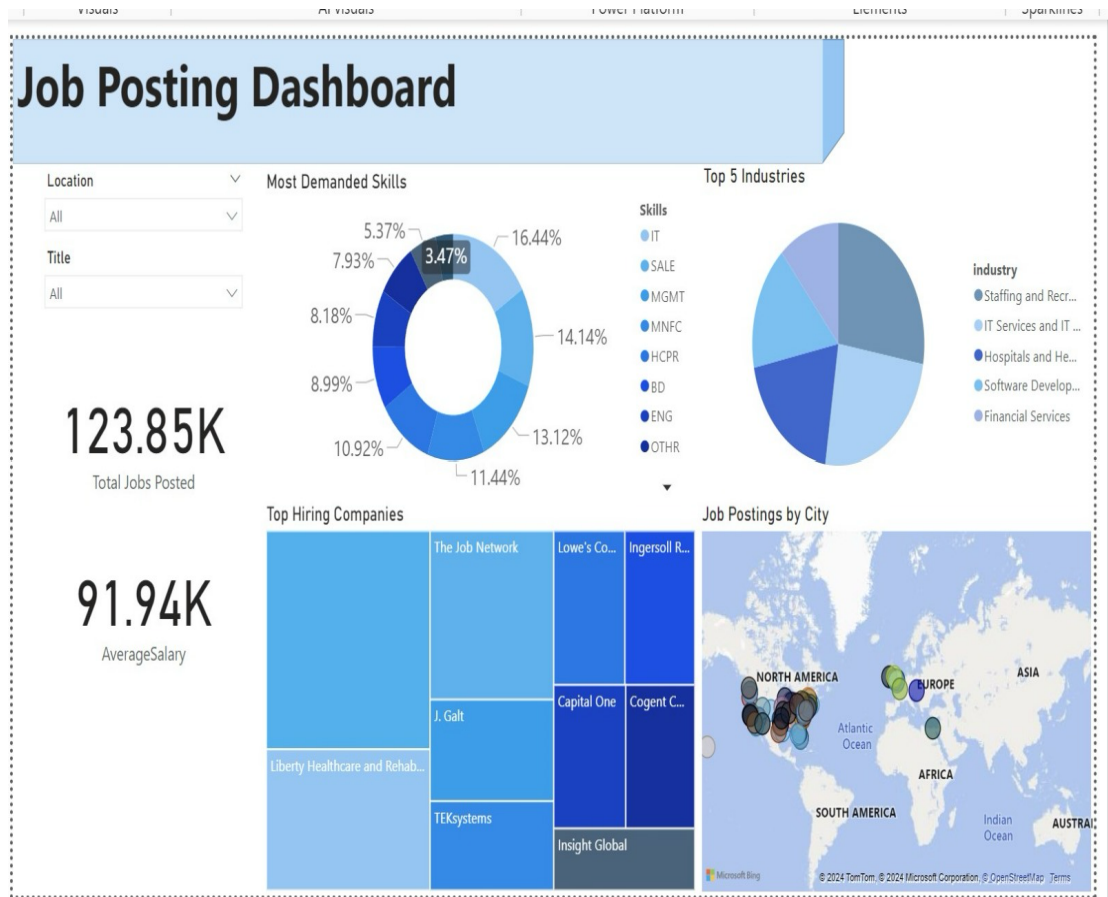
Appendix C: Dashboard Visualizations

The image included (refer to the LinkedIn Dashboard in the visualizations) represents a comprehensive job market dashboard. It combines key data points such as total job postings, top companies hiring, skills in demand, and geographical

distribution of job listings. This dashboard was pivotal in summarizing the findings and offering insights at a glance.

- **Job Postings by Location:** This heatmap (shown in the dashboard) provided a geographical representation of job availability, revealing hotspots of hiring activity across different cities globally.
- **Most Demanded Skills:** The pie chart (refer to image in Appendix D) broke down the skills most frequently required by employers. IT (16.44%), Sales (14.14%), and Management (13.12%) topped the list, reflecting the growing demand for technological and business-related expertise in the job market.
- **Top 5 Industries by Job Postings:** Another pie chart displayed the most active industries for hiring. Staffing and Recruiting, IT Services, and Hospitals/Healthcare led the industry categories, indicating significant growth in these areas.
- **Total Jobs Posted and Average Salary:** The metrics 123.85K (Total Jobs Posted) and 91.94K (Average Salary) provided a quick snapshot of the market's size and average compensation. These numbers highlighted a competitive job market with strong earning potential across roles.





Appendix G: References & Tools Used

For this analysis, Power BI was the primary tool used to create the visualizations. The data was sourced from an open-source dataset on Kaggle, containing job postings scraped from LinkedIn for the years 2023-2024.

The dataset was processed and structured directly within Power BI, using its built-in data transformation tools to clean and prepare the data. Relationships between tables were established within the Power BI data model, allowing for effective cross-referencing and filtering across various dimensions. The interactive dashboard was then created, allowing for detailed analysis and exploration of the job market trends, salary comparisons, and geographical insights.

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