Global AI Job Market Trend Analysis using SQL (2025)

🙍‍♀️ **By Saanvi Tandon**

(Dataset: Global AI Job Market and Salary Trends 2025)

🧠 Objective

This project explores global trends in the AI job market using SQL. The analysis focuses on emerging roles, salary patterns, remote work distribution, and hiring dynamics across countries and companies. The goal is to draw actionable insights from job postings to understand how the AI landscape is evolving.

🔧 Tools Used

- MySQL

- Dataset from Kaggle

- GitHub

🔎 Questions Explored

Q1: How has AI job posting activity changed over time?

- AI job postings remained steady throughout 2024, peaking in April and December.

- 2025 started strong in January but saw a noticeable drop in February, followed by a slow recovery. This suggests a slight dip in hiring momentum moving into 2025.

Q2: Which countries are hiring the most for AI roles?

- France leads in AI hiring with 514 job postings, followed closely by Sweden (513), Denmark (505), and Israel (499).

- Other top countries include the U.S., UK, Canada, India, and Germany, showing that AI opportunities are strong across both Europe and major global tech hubs.

Q3: Which companies are posting the highest number of AI jobs?

- TechCorp Inc leads AI hiring with 645 job postings, followed closely by Digital Transformation LLC and Predictive Systems.

- The top companies show strong demand in cloud, analytics, and intelligent systems.

Q4: How has the demand for AI jobs changed from 2024 to 2025?

- AI job postings dropped significantly from **7,342 in 2024** to **2,375 in 2025**, reflecting a **67.6% decrease** in demand.

- This sharp decline could indicate a hiring slowdown, budget cuts, or market stabilization after rapid AI expansion in 2024.

Q5: Which experience levels are most in demand?

- Mid-level (MI) roles are the most in-demand in the AI job market, with 2,484 postings, followed closely by Executive (EX), Senior (SE), and Entry-level (EN) positions.

- This suggests that companies are prioritizing experienced professionals who can contribute immediately, while still maintaining opportunities across all experience levels.

Q6: What are the most common AI job titles?

- The most common AI job titles include Machine Learning Researcher (532), Autonomous Systems Engineer (525), and AI Software Engineer (511).

- Other high-demand roles like NLP Engineer, AI Architect, and Data Engineer reflect a strong focus on building, deploying, and scaling intelligent systems across industries.

Q7: Which job titles are growing the fastest over time?

- Across the board, all major AI job titles saw a **decline in postings from 2024 to 2025**, with roles like **Data Scientist**, **AI Software Engineer**, and **Head of AI** experiencing the sharpest drops.

- This suggests a potential market correction or reduced hiring demand after a peak in 2024.

Q8: Which countries are offering the most remote AI jobs?

- Sweden leads in remote AI roles with 37.6% of postings fully remote, followed by China, Ireland, and Australia.

- Even countries like India, France, and the U.S. show over 30% remote jobs, highlighting a global shift toward flexible AI work.

Q9: Which country offers the highest average salary?

- Denmark and Switzerland offer the highest average AI salaries, followed by Norway and the United States. Other top-paying countries include Singapore, the UK, and the Netherlands.

- This highlights a strong AI compensation landscape across Europe and North America, with notable offerings in Asia-Pacific regions like Singapore and Australia as well.

Q10: Is there a relationship between remote work and salary?

- There's a slight positive correlation between remote work and average salary. Fully remote roles (remote_ratio = 100) offer the highest average salary at $116,885, slightly above hybrid (50) and on-site (0) roles, both around $114,800 USD.

- While the difference isn't dramatic, it suggests that companies may still be willing to offer slightly higher pay for fully remote flexibility.

📌 Conclusion

This project provided a hands-on understanding of how to explore real-world datasets using SQL. Through this analysis, I gained insights into AI hiring trends, salary structures, and the growing role of remote work. It also helped me improve my SQL querying, grouping, filtering, and data storytelling skills.

📁 Code Repository

https://github.com/saanvitandon/ai-job-market-sql-analysis