

Power BI Project Report AI Job Market Analysis (2010–2025)

1. Introduction

The rapid growth of Artificial Intelligence (AI) has significantly influenced global job markets across industries.

This project analyzes AI-related job postings from 2010 to 2025 to understand trends in job demand, salary distribution, required skills, industries involved, and geographical spread.

Using Power BI, an interactive dashboard was developed to visualize key insights from the dataset and support data-driven understanding of AI job market evolution.

2. Objective of the Project

- To analyze the growth of AI job postings over the years
- To identify which countries and regions have the highest AI job demand
- To study AI job distribution across industries
- To examine average salary trends by industry
- To understand required skills and seniority levels in AI jobs
- To create interactive dashboards for clear visualization and analysis

3. Tools and Technologies Used

Power BI – Data visualization and dashboard creation

Power Query Editor – Data cleaning and transformation

DAX (Data Analysis Expressions) – Creating measures and KPIs

CSV Dataset – Source data of AI job postings

4. Dataset Description

The dataset contains AI job postings from 2010 to 2025 with important columns such as job_id, posting_year, country, region, industry, job_title, salary_usd, core_skills, and seniority_level.

5. Data Pre-Processing (Power Query)

- Corrected data types
- Removed duplicate records
- Removed null values

- Ensured proper text formatting

6. DAX Measures Created

Total Jobs = COUNT(job_id)
Distinct Countries = DISTINCTCOUNT(country)
Distinct Regions = DISTINCTCOUNT(region)
Total Years = DISTINCTCOUNT(posting_year)
Average Salary = AVERAGE(salary_usd)

7. Dashboard 1 — Overview Dashboard

This dashboard provides a high-level summary of the AI job market using KPIs, trend analysis, region and country distribution, and slicers for interactivity.

8. Dashboard 2 — Detailed Analysis Dashboard

This dashboard provides deeper insights into industry demand, salary patterns, seniority levels, job titles, and required AI skills using various charts and tables.

9. Key Insights

- AI job postings increased rapidly after 2018
- Certain regions and countries dominate AI hiring
- Technology, finance, and healthcare show high AI adoption
- Mid and senior-level roles are in high demand
- Specific AI skills are repeatedly required across industries

10. Conclusion

The AI job market has experienced rapid growth over the past decade. This project demonstrates how Power BI can transform raw data into meaningful insights through interactive dashboards and DAX calculations.

Submitted By

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