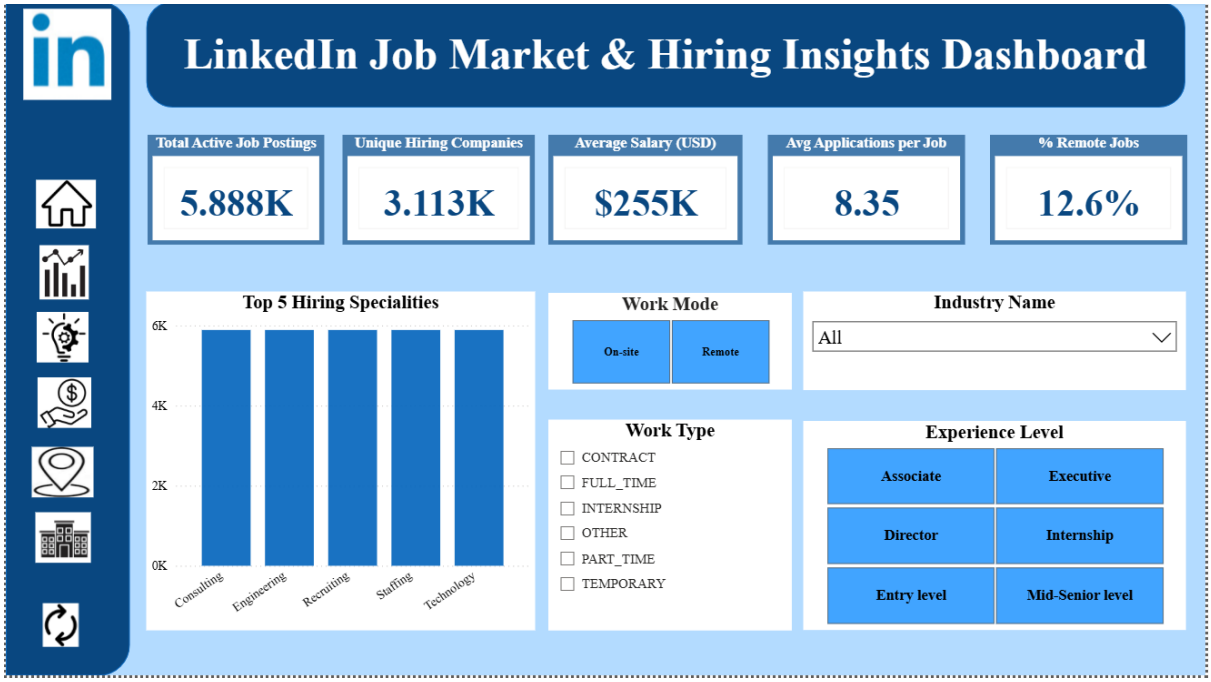
LinkedIn Job Market & Hiring Insights Dashboard

Introduction

With the rapid growth of digital hiring platforms, LinkedIn has become one of the primary channels for job postings and talent acquisition. However, both job seekers and recruiters often struggle to extract meaningful insights from the vast volume of available job data. Information related to hiring trends, in-demand skills, salary expectations, geographic opportunities, and competition levels is scattered and difficult to interpret without structured analysis.

This project, LinkedIn Job Market & Hiring Insights Dashboard, aims to bridge this gap by analyzing LinkedIn job market data and presenting it through an interactive Power BI dashboard. By transforming raw job posting data into actionable insights, the dashboard empowers users to make data-driven career and hiring decisions. The solution focuses on uncovering market demand, skill trends, salary benchmarks, location-based hiring patterns, and application competitiveness in a clear and intuitive manner.

Dashboard Landing Page



Problem Statement

Job seekers and recruiters using LinkedIn lack clear visibility into job market trends, in-demand skills, salary expectations, geographic hiring patterns, and competition levels. Due to fragmented and unstructured data, making data-driven career and hiring decisions becomes challenging. This project aims to solve this problem by analyzing LinkedIn job market data and developing an interactive dashboard that delivers actionable insights on hiring trends, skill demand, salary distribution, and location-based opportunities.

Existing System

- Job market analysis is mostly manual and time-consuming
- Job data is scattered across individual LinkedIn postings
- There is no centralized view of hiring trends, skill demand, or role growth
- Salary comparison across roles, locations, and industries is inconsistent
- Limited visibility into competition levels such as applications per job

Technology Used

Excel

- Initial data inspection and formatting
- Handling missing values and basic data validation

ETL (Extract, Transform, Load)

- Extracted LinkedIn job market data
- Transformed raw data into structured and analysis-ready tables
- Loaded clean data into Power BI for visualization and insights

Power BI

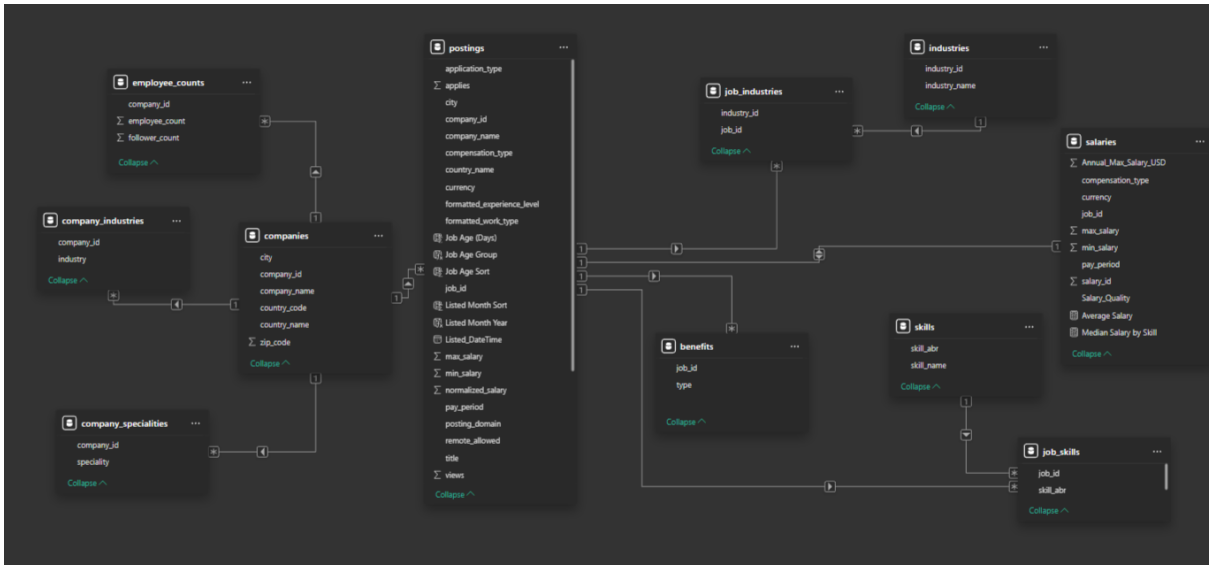
- Data modelling and relationship management
- Interactive dashboard development
- KPI cards, slicers, and visual analytics

Data Transformation Steps

- Renamed columns for clarity
- Removed duplicate records
- Standardized country codes and city names
- Filtered irrelevant or incomplete rows
- Created curated city lists
- Converted data types (dates, salary, numeric fields)
- Normalized salary values to USD
- Cleaned text fields (uppercase formatting)
- These steps ensured data accuracy, consistency, and usability.

Data Modelling

The data modelling layer forms the backbone of the LinkedIn Job Market & Hiring Insights Dashboard. A structured relational data model was created in Power BI to efficiently connect job postings with related dimensions such as companies, industries, skills, salaries, and benefits.



The model follows a **star schema–based approach**, where the **Job Postings table** acts as the central fact table and is connected to multiple dimension tables.

Key aspects of the data model include:

- Job ID used as the primary key across related tables
- One-to-many relationships between fact and dimension tables

- Separate dimension tables for companies, industries, skills, and salaries
- Optimized relationships to ensure accurate aggregation and filtering
- Improved performance and scalability for interactive analysis

This structured model enables efficient slicing, filtering, and drill-down analysis across multiple dimensions.

KPI Summary

The dashboard highlights the following key performance indicators:

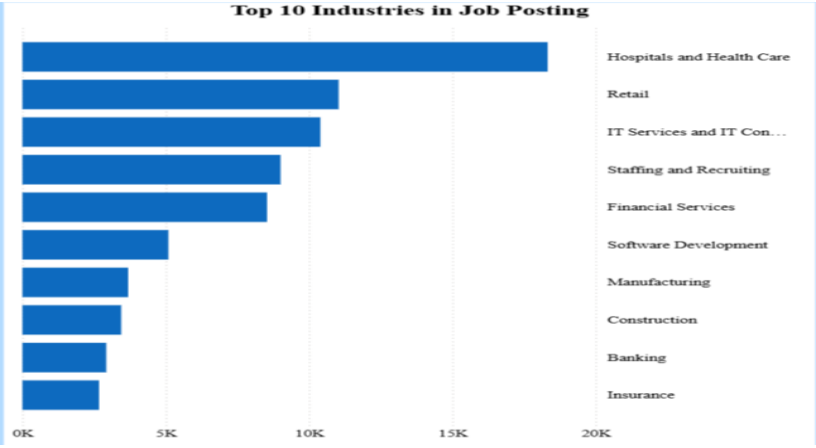
- Total Active Job Postings: 5.88K
- Unique Hiring Companies: 3.11K
- Average Salary (USD – annual): $255K
- Average Applications per Job: 8.35
- Remote Jobs Percentage: 12.6%

These KPIs provide a quick snapshot of the overall job market landscape and hiring trends.

Chart Used

1) Top Industries by Job Postings (Bar Chart)

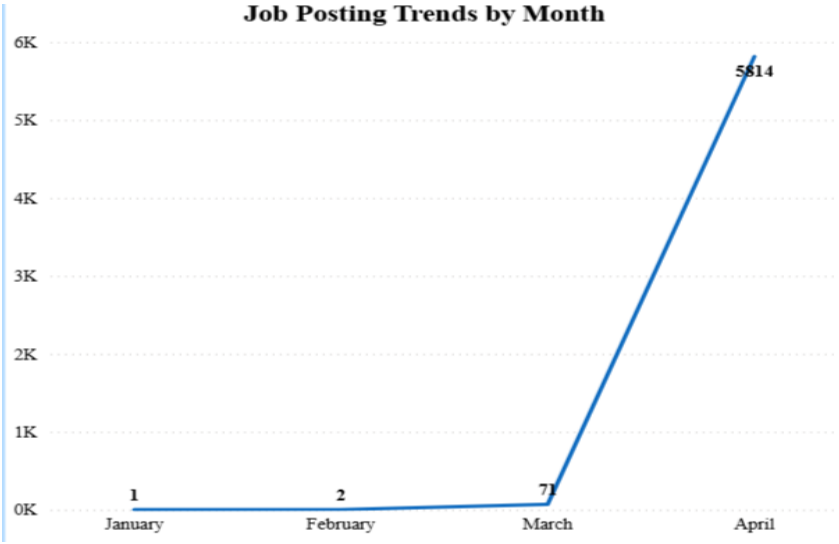
This chart highlights industries with the highest number of job openings, helping identify sectors with strong hiring demand.



Why this chart: A bar chart allows easy comparison of job counts across industries, making it ideal for categorical data.

2)**Monthly Job Posting Trends (Line Chart)**

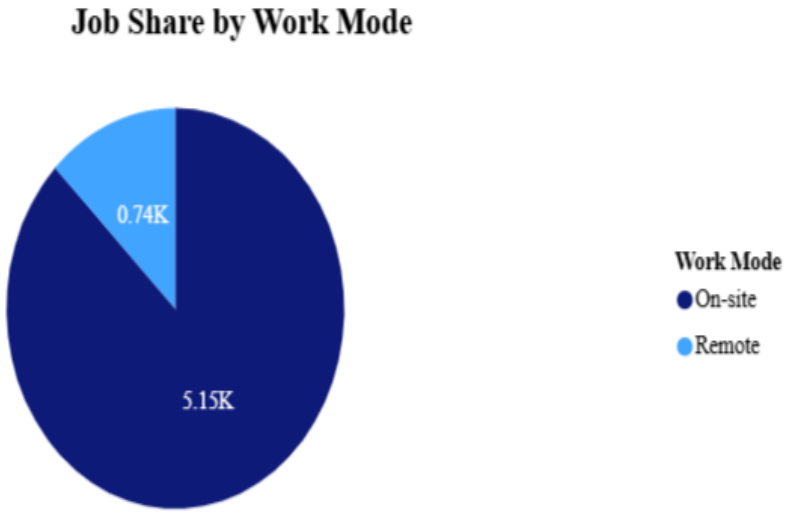
This chart shows how job postings change over time, revealing hiring patterns and seasonal trends.



Why this chart: A line chart is best suited for time-series data as it clearly displays trends and fluctuations over time.

3)**Work Mode Distribution (Pie Chart)**

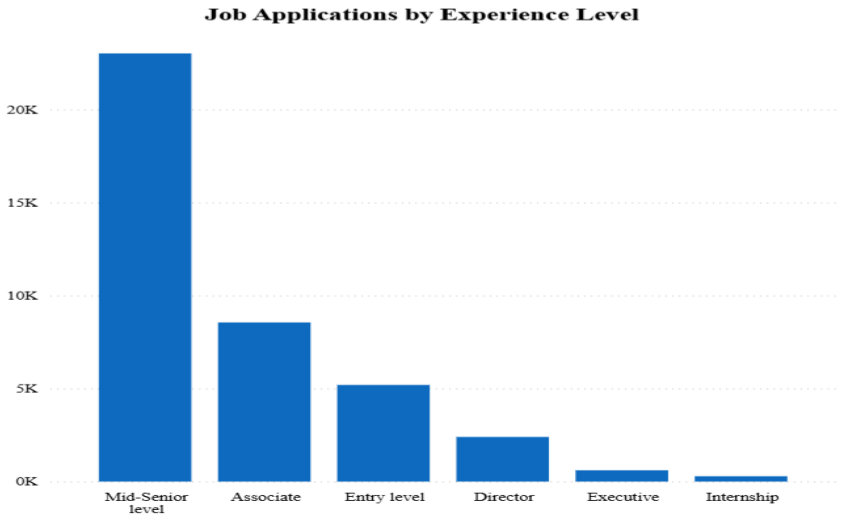
This visualization represents the proportion of remote, hybrid, and on-site jobs in the market.



Why this chart: A pie chart effectively shows percentage distribution and part-to-whole relationships.

4)**Experience Level Distribution (Horizontal Bar Chart)**

This chart displays job postings across different experience levels such as entry, mid, and senior roles.

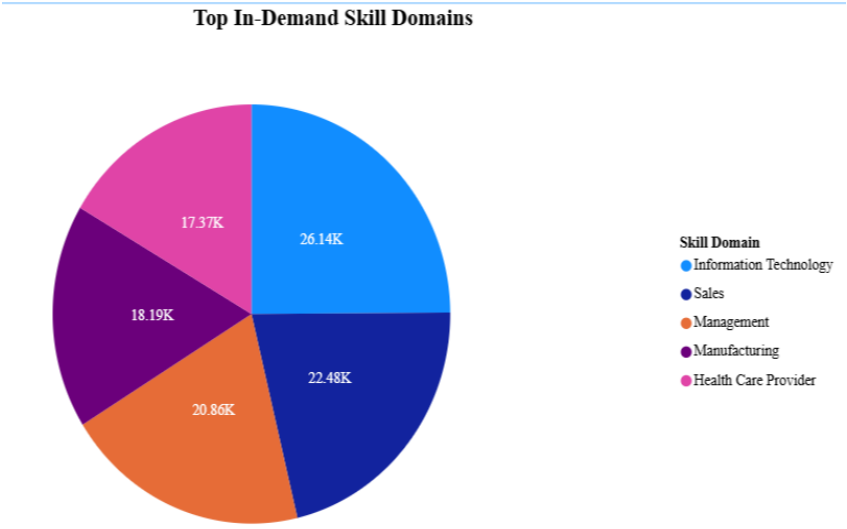


Why this chart: A horizontal bar chart improves readability when category names are long and enables quick comparison.

5)**Skill Domain Distribution (Pie Chart)**

This chart illustrates the distribution of required skill domains across job postings.

Why this chart: A pie chart helps quickly identify dominant skill domains in the job market.



Query Questions

1)What is the total number of active job postings in the market?

2)How many unique companies are currently hiring?

3)What is the average salary offered across all job postings (USD)?

4)How competitive is the job market (average applications per job)?

5)What percentage of job postings are remote vs on-site?

6)Which hiring specialities have the highest number of companies actively hiring?

7)Which industries have the highest number of job postings?

8)What is the monthly trend in job postings?

9)What share of job postings comes from each skill domain?

10)Which experience levels are most in demand?

11)How does average salary vary by experience level?

12)Which experience level has the most job applications?

13)How does salary differ between remote and on-site jobs?

14)Which cities have the most job opportunities?

15)Which companies post the most jobs?

16)What share of jobs comes from remote vs on-site companies?

Conclusion

The **LinkedIn Job Market & Hiring Insights Dashboard** successfully converts complex job market data into a unified and interactive analytical solution. By leveraging Power BI's data modelling and visualization capabilities, the dashboard provides valuable insights into hiring trends, skill demand, salary benchmarks, geographic distribution, and competition levels.

This project empowers job seekers to make informed career decisions and helps recruiters understand market dynamics and optimize hiring strategies. Overall, it demonstrates how data

analytics can transform raw job data into actionable intelligence for smarter, faster, and more strategic decision-making.