



Project Report: LinkedIn Job Trend Analysis

1. Introduction

LinkedIn is one of the most popular platforms for job seekers and recruiters. Thousands of job postings uploaded daily provide valuable insights into **in-demand skills, hiring cities, companies, and emerging roles**.

This project focuses on analyzing LinkedIn job postings to identify hiring patterns and trends that benefit job seekers, recruiters, and companies.

2. Abstract

The project combines **Python-based web scraping** with **Power BI visualization** to analyze job postings.

- **Python & Selenium** were used to scrape job postings (titles, companies, locations, and skills).
 - **Pandas** was used for cleaning and preprocessing the scraped dataset.
 - **Power BI** was used to create interactive dashboards to visualize insights like most demanded skills, top cities, hiring companies, and role-skill distribution.
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3. Tools & Technologies

- **Python** (Selenium, Pandas, OpenPyXL) – Web scraping & data cleaning
 - **Excel** – Intermediate dataset handling
 - **Power BI** – Interactive dashboards & data storytelling
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4. Steps Involved

1. Web Scraping:

- Used Selenium to scrape job postings from LinkedIn for Data Analytics-related roles.
- Collected data including job title, company, location, and job description/skills.

2. Data Cleaning:

- Removed duplicates and missing entries using Pandas.
- Extracted **skill keywords** (e.g., SQL, Python, Excel, R, AWS) from job descriptions.

- Exported cleaned dataset to CSV/Excel.

3. Data Analysis & Visualization:

- Created Power BI dashboard with KPIs and visuals.
 - Designed charts for **skills, cities, companies, and roles**.
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5. Key Insights

- Analyzed **4,657 job postings**.
 - Found **125 unique skills** and **21 unique roles**.
 - **Most demanded skills:** R (top), SQL, Python, Excel, Git, Agile, AWS.
 - **Top hiring cities:** Bengaluru and United States lead, followed by Hyderabad, Mumbai, Pune, and Chennai.
 - **Top companies hiring:** Microsoft, GEICO, Hirenxa, S&P Global.
 - **Role-skill patterns:** Data Analyst, Business Analyst, and Data Scientist roles consistently require R, SQL, and Python as core skills.
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6. Conclusion

The LinkedIn Job Trend Analysis project highlights the **current hiring landscape**:

- Technical skills like **R, SQL, and Python** dominate the demand in data-related roles.
 - **Bengaluru and United States** emerge as job hubs for analytics professionals.
 - Companies like **Microsoft and GEICO** are actively recruiting.
- This analysis empowers **students and job seekers** to align their learning paths with industry needs and helps **recruiters** identify skill gaps and target the right candidates.