10Alytics

Job Posting Analysis and Data Cleaning using Python



In today's job market, data plays a crucial role in making informed decisions for both job seekers and employers. In this project, we used Python to analyze job postings with the goal of finding meaningful information that will be useful to recruiters, employers, and job seekers alike.

Background

Job posting analysis involves examining datasets scraped by Data Engineering Interns to uncover valuable insights and trends in the job market.

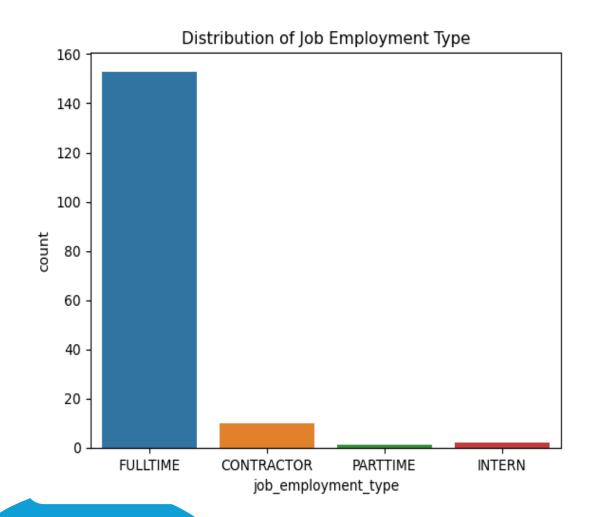
Project Objectives

- ☐ Utilize Python libraries and tools to perform (EDA) on the collected job data.
- ☐ Identify trends, patterns, and insights related to the different technology jobs.
- ☐ Visualize the analysis results using appropriate charts, graphs, and visual representations.

Data Collection & Processing

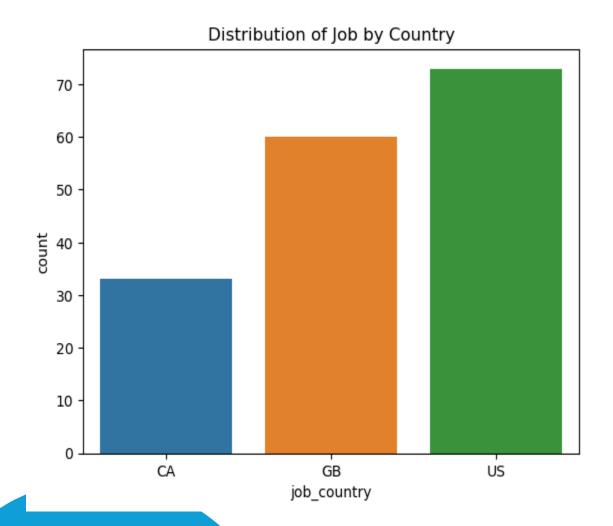
Data engineering interns scrape datasets from various sources for data collection, while data cleaning focuses on preparing the collected data for analysis.

- Removing duplicates
- Handling missing values
- Standardizing formats
- Correcting errors



Exploratory Data Analysis

From this chart, it's evident that most job postings are for full-time positions, comprising approximately 90% of the dataset.

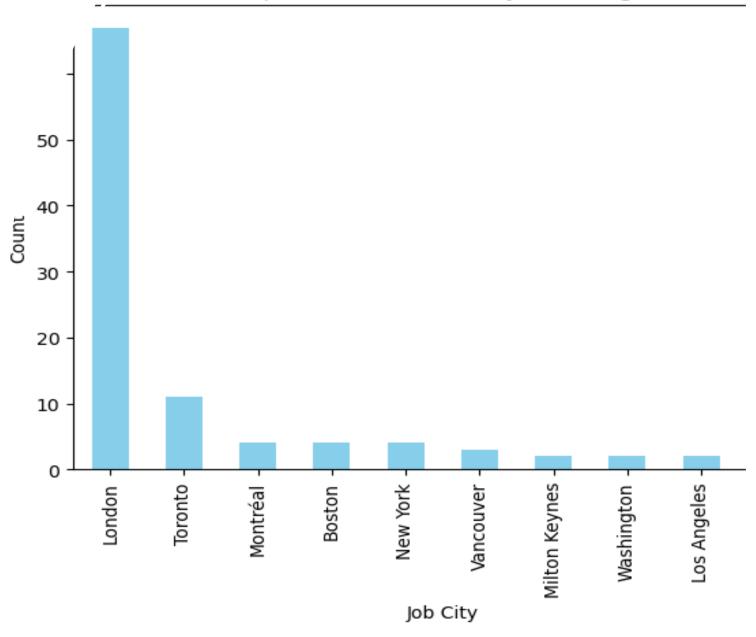


Distribution of job by Country

The United States (US) leads with the highest number of job postings, followed by Great Britain (GB) and Canada (CA).

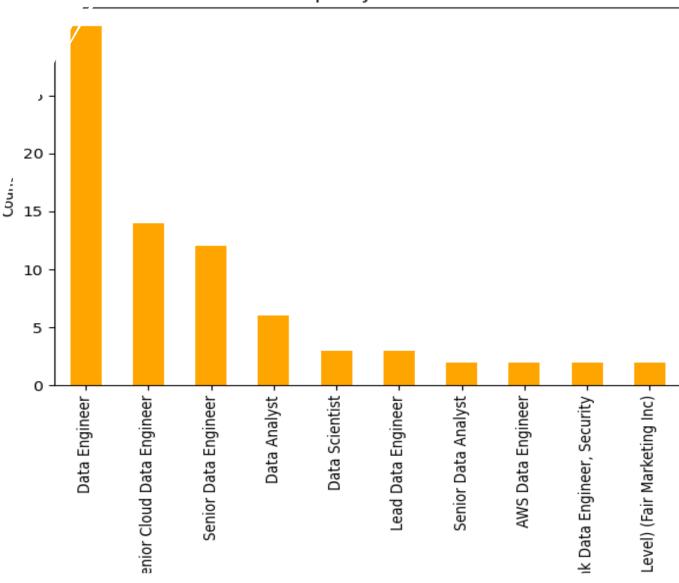
Top 10 Cities with Most Job Postings

London emerges as the top city for job postings, indicating a robust job market in the UK capital. Toronto follows with a significant number of job opportunities, while Jersey City has the least.



Top 10 Most Job Title Postings

Data Engineer is the most common job title among the postings, with 31 occurrences. This indicates a high demand for professionals skilled in designing, building, and managing data pipelines.



Distribution of Employer Company Type

100 -

Number of Job Postings

20 -

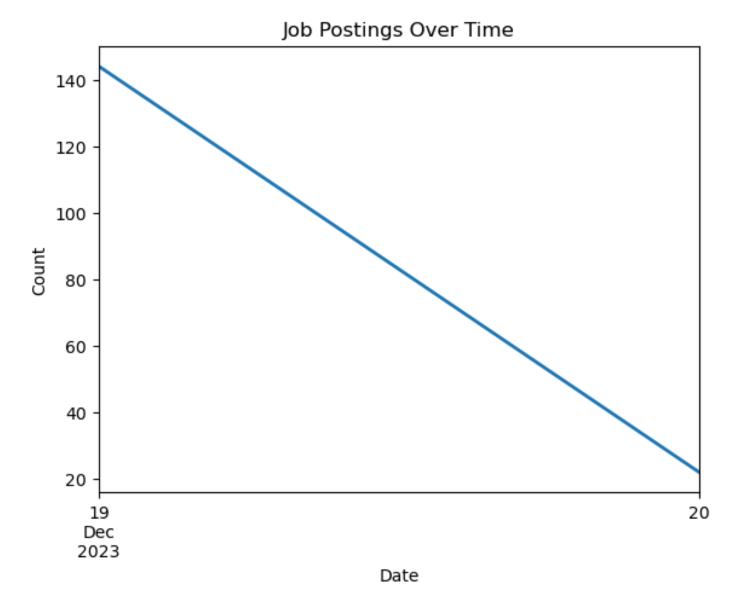
The consulting industry dominates
the job market represented in the
dataset, with a significant number of
job postings.

Distribution of Employer Company Type



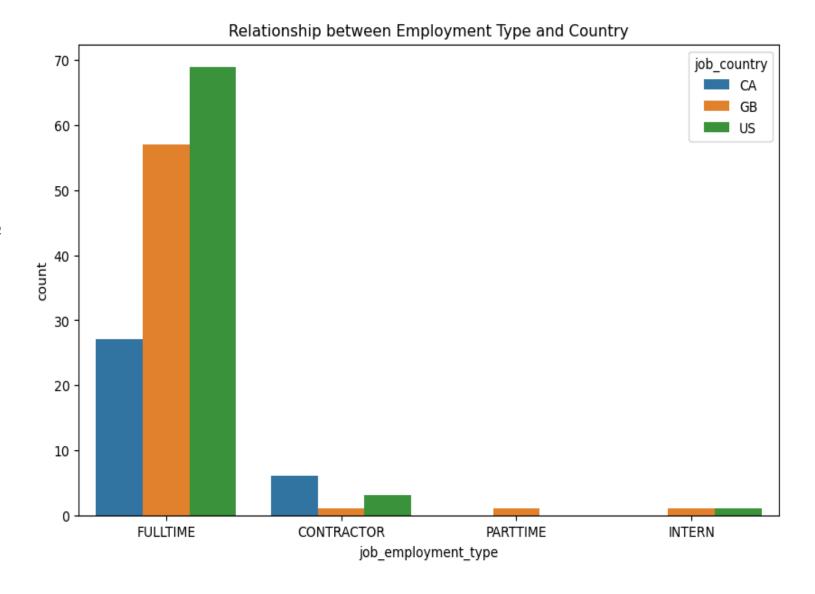
Job Postings over Time

To observe any trends or patterns in job postings over the analyzed time period, after 19th December to 20th December was on decline



Relationship between Employment Type and Country

The country with the most full-time job posting is US follow by GB and Canada



Word Cloud for Technology Job Titles

Data Engineer role is more prominent in the visualization, which means it is the role that is most sort after or posted the most.

Word Cloud for Technology Job Titles



Word Cloud for Job Descriptions



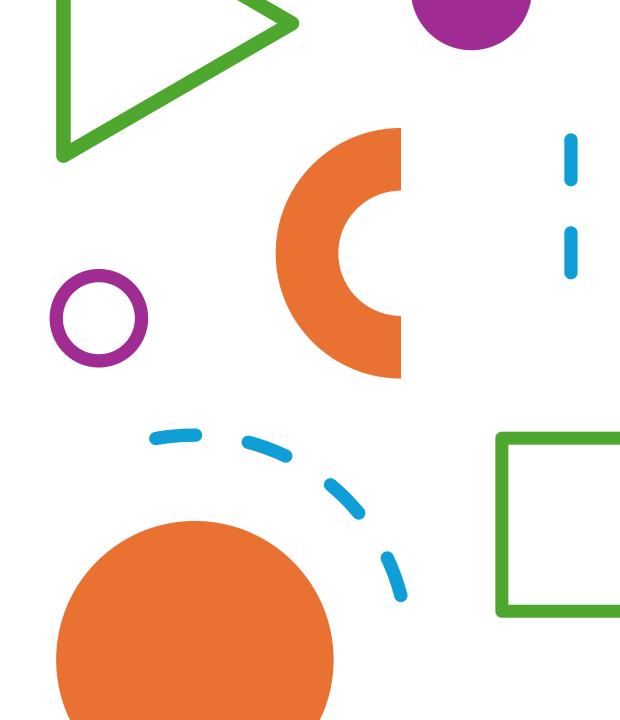
Recommendations

Employers and recruiters should focus their hiring efforts in regions with high number of job postings, such as London, Toronto, and New York.

Job seekers should consider industries with a high number of job postings, such as consulting and finance to explore potential career opportunities.

Future Work

Continued monitoring and analysis of job posting data can help stakeholders stay abreast of evolving trends and make proactive decisions in the dynamic job market landscape.



Conclusion

The comprehensive analysis of job postings and industry insights provides valuable information about the job market in the dataset. These insights can inform strategic decisions for stakeholders, enabling them to effectively navigate the job market landscape and capitalize on emerging opportunities