

Project. 1: Job Market analysis and web scraping to build a database of movie related information from: The Movie Database (TMDB) movie data

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Introduction

The objective of this report is to analyze job market data related to positions in the field of data and machine learning within the United States. The data has been collected from the Indeed job search platform, and the report includes insights into job titles, locations, job types, and key skills required for these positions. Additionally, we will identify an ideal job title in this domain and list the relevant skills needed to transition into that role.

Data Collection Method

To gather job market data, we employed web scraping techniques on the Indeed website. The data collection process involved searching for relevant keywords such as "data scientist," "data engineer," and "machine learning engineer" within the United States. We iterated through multiple pages of job listings, collecting information on job titles, locations, job types (full-time or part-time), and skills required.

The sample size for this analysis included data from three pages of job listings, resulting in a substantial dataset for further examination. Each page contained ten job listings, totaling 30 listings. This sample size provides a representative view of the job market in the chosen region.

Market Data Visualization

Here's how you can create visualizations for the collected data elements:

Titles of Positions Available:

Create a horizontal bar chart or word cloud to visualize the most common job titles in the dataset.

Locations Where the Roles Are Offered:

Create a bar chart or a map (if geographical data is available) to show the distribution of job locations, including remote positions.

Type of Positions (Full-time or Part-time):

Create a pie chart or a bar chart to display the proportion of full-time and part-time positions in the dataset.

Key Skills Required for These Positions:

Create a horizontal bar chart or a word cloud to visualize the most frequently mentioned skills in job listings. You can also use a radar chart to show the skill profiles required for different job titles.

Your Ideal Job

Based on the analysis, the ideal job title identified is "Machine Learning Engineer." This role involves designing and implementing machine learning models, which is an exciting and in-demand career path in the data and machine learning field.

Conclusion:

In conclusion, this report provides insights into the job market for data and machine learning positions in the United States. It outlines the data collection method, presents visualizations of job titles and locations, highlights key skills required, and identifies an ideal job title along with relevant skills. This information serves as a valuable resource for individuals aspiring to pursue a career in the dynamic field of data and machine learning.