Data Analysis Project

Data Analyst: Diego Vela

Client/Sponsor: Diego Vela

Purpose

The goal of this project is to study the computer science job trends in the United States. The project will analyze a variety of fields from data science to software engineering. Each job will measure the trend for the past 5 years and the projected growth for the next 10 years. The final deliverable will identify the three branches with the best future prospects and return a list of five skills that will be useful to learn for those jobs.

Scope / Major Project Activities

Activity	Description
Define Objectives and Scope	Identify the specific fields within computer science to be analyzed.
Data Collection	Identify relevant sources of data, such as government labor statistics, job postings, industry reports, and surveys.
Identify Top Branches with Future Prospects	Analyze the projected growth rates for each computer science field. Identify the top three branches with the best future prospects based on growth trends and demand.
Identify Key Skills	Determine the essential skills required for the top three branches identified. Use data analysis techniques to identify the most in-demand skills within each field. Rank and prioritize based on the relevance and importance to the job-market.
Deliver Final Report	Document the entire analysis process, including data sources, methodologies, and findings. Prepare a comprehensive report summarizing the key insights, trends, and recommendations.

This project does not include

- Skills essential to university education in computer science(eg. algorithms and data structures).
- Hyper-specialized careers in each branch
- Recommendations for specific Individuals
- Global job market analyses
- Detailed Data on future technologies that could impact the trends

Deliverables

Deliverable	Description/ Details
Data Visualization	Visualizations, such as charts, graphs, and infographics, that illustrate the trends and patterns identified in analysis.
Code Repository	Repository containing the code used to collect, clean, analyze, and visualize the data.
Top Branches with Future Prospects	Identification of the top three branches within computer science with the best future prospects.
Key Skills Recommendations	A list of five skills that will be useful to learn for the top three branches identified, along with an explanation of why these skills are important and how they relate to future job prospects.
Final Report	A comprehensive document summarizing the findings of the analysis, including trends, insights, and recommendations.

Schedule Overview / Major Milestones

Milestone	Expected Completion Date	Description/Details
Data Collection	Week 4	Data is collected
Data Visualization	Week 6	Visualization of data
Code Repository	Week 7	Code repository ready
Top Branches Identified	Week 8	Top branches are found
Key Skills Recommendations	Week 8	Relevant skills are found
Final Report	Week 10	FInal report including review

*Estimated date for completion

July 26, 2024