Syracuse University
School of Information Studies

IST 737 VISUAL ANALYTICS DASHBOARDS

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SCHOOL OF INFORMATION STUDIES
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TABLEAU PROJECT REPORT

Job Market Trend Analysis

"Job opportunities for iSchool students in Data Science"

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PROJECT DESCRIPTION

This Tableau project focuses on analyzing job market trends in the data science domain, aiming to provide insights into global and U.S.-based job opportunities, roles, and hiring patterns. The purpose is to help individuals understand key aspects such as in-demand roles (e.g., Data Scientist, Data Engineer), top hiring companies, and the most required skills like Python and Machine Learning. It also examines salary trends across experience levels and employment types, highlighting growth potential in the field. The objective is to guide aspiring professionals and decision-makers in navigating the evolving data-driven job market effectively.

DATA SOURCES

https://tinyurl.com/projectdatasets

DASHBOARD INSIGHTS

Opening Dashboard

- This dashboard demonstrates the global dominance of Data Scientist roles, reflecting the strong demand for analytical and technical expertise in the job market and it Illustrates the increasing opportunities in data science, highlighting its rising importance in shaping the modern workforce.

Dashboard 1

- The dashboard shows that the US leads global data science job opportunities with 63% of openings and hence in the subsequent dashboards focus is given on US markets, highlights salary trends where entry-level, part-time roles range from $10,000–$15,000, identifies key hubs for Data Engineers and Data Scientists, and emphasizes the high demand for Machine Learning Engineers and Data Analysts, with top companies like Salesforce and Honeywell leading data-related hiring.

Dashboard 2

- The dashboard reveals that medium-sized companies (61.41%) lead in data hiring, with senior and expert-level roles (66%) in high demand, full-time positions dominating (99.22%), and Machine Learning Engineers commanding the highest salaries, especially for AI expertise, while Data Engineers see the most job openings at the senior level.

Dashboard 3

- The dashboard shows that California and Texas are the top hiring hubs for data roles, with Data Engineers earning the highest salaries, most salaries clustering around $100,000, and a strong demand for data-related positions across various states.

Dashboard 4

- The dashboard highlights that Python, SQL, and Machine Learning are the most in-demand skills across top employers like Alphabet and NVIDIA, with Machine Learning Engineers requiring the most diverse skill set, including proficiency in SQL.

ADDITIONAL INSIGHTS

- **Intuitive User Experience**: These dashboards boasts an intuitive design with clear navigation and interactive features, ensuring accessibility for users of all skill levels and providing a seamless experience for anyone exploring the data.
- **Visually Engaging and Insightful**: A dynamic range of visualizations, including calculated fields, parameters, and heatmaps, elevates user engagement and enhances the delivery of complex insights in an easily digestible format.
- **In-Depth Market Analysis**: This project delivers a comprehensive and global overview of the data science job market, offering a deep dive into critical trends, salary insights, and skill demand patterns both locally and worldwide.
- **Strategic Actionable Insights**: The dashboard empowers job seekers and professionals with actionable, data-driven insights, uncovering clear pathways to success in the rapidly evolving data science field and enabling informed career decisions.

OBSERVATION & CONCLSUION

The observations from the analysis highlight that data science continues to dominate as a leading career path in the modern job market. With skills like Python, SQL, Machine Learning, and Data Visualization in high demand across top companies such as Alphabet, Amazon, and NVIDIA, the field offers significant growth potential. Data Science roles have a 50% higher job posting volume compared to other technical roles, reflecting its critical role in industries like Finance, Healthcare, and Technology. The analysis underscores the importance of upskilling to meet the growing demand for data-driven decision-making, solidifying data science as an essential skill for the modern workforce.