Subhrajyoti Mahanta Data Analyst

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Portfolio Website

Education

B.tech Dec 2021 - present

Indian Institute of Engineering Science and Technology, Shibpur ☑

Professional Experience

DST-SERB, Govt. of India (IIEST, Shibpur under Dr. Anui Kishor Budhkar)

Jul 2023 - present

- Designed a 6-LIDAR sensor assembly integrated with Vbox data for comparative validation using OpenCV with a vehicle mounted camera system, achieving precise intra-vehicular gap measurements with an accuracy of ±2 cm
- Transformed and optimized raw sensor data, with computation of lateral velocities with a deviation tolerance of ±5%, conducted comprehensive data visualization using Tableau, analyzing the impact of electric vehicles (EVs) across realworld traffic scenarios.

IIT GUWAHATI, Lidar Data Analyst (under Prof. A.K. Maurya)

May 2023 - Jul 2023

- Cleaned and Scrutinized 100+ GB of data collected by LIDAR and image processing from traffic using NumPy, Pandas,
- Leveraged 50+ gb Vbox data for a further data comparison of the Lldar assembly and camera mounted on the vehicle.
- Streamlined and calibrated LIDAR data, allowing a precise calculation of the lateral vehicle velocity with an accuracy rate of 90%.

Projects

Keywords: Power BI, Data Visualization, PostgreSQL, Data Analysis, Ad-Hoc Reporting, Performance Optimization

- Engineered an interactive Power BI dashboard to analyze 500,000+ trips, optimizing data visualization for business
- Architected a robust PostgreSQL database with 7+ tables, ensuring seamless storage and retrieval of operational data.
- Executed SQL queries to track trip trends, revenue patterns, and customer retention reporting 10+ ad-hoc requests.
- Unearthed revenue gaps, revealing repeat passengers contribute 40%+ more per trip, leading to strategic recommendations.

Data Analyst Job Market Insights: Trends, Salaries, and Optimal Skills 🛮

Keywords: Data Extraction, Advanced Excel, Data Cleaning, Data Visualization, Python, Pandas, Seaborn, Matplotlib, Jupyter Notebook, Documentation, Pivot Tables, Pivot Charts, DAX

- Analyzed 10,000+ job postings from Luke Barousse's dataset to identify in-demand skills, salary trends, and career opportunities for data analysts.
- Developed 5+ interactive visualizations and dashboards in Excel (Power Pivot, Power Query) and Jupyter Notebooks to showcase salary trends and skill demand.
- Orchestrated interactive reports and visualizations in Jupyter Notebook, uncovering that SQL appeared in 50%+ of job postings and Python in 72% of Data Scientist roles.
- Optimized career insights by identifying high-paying and high-demand skills, revealing Oracle as the top-paying skill (\$97K) and Excel as the most in-demand.

SQL-Based Market Expansion Analysis - Monday Coffee Project 2

Keywords: Market Expansion Analysis, SQL, Data Cleaning, Data Structuring, Decision Optimization, Location Strategy

- Monday Coffee targeted to identify 3 optimal cities for expansion by analyzing sales performance and customer
- Devised a comprehensive strategy focused on analyzing more than 100k records records to determine optimal city placements for coffee shop
- Cleaned, Systematized, and analyzed 100,000+ records using SQL; performed revenue analysis, customer segmentation, and evaluation of sales trends in 10+ cities
- Pinpointed **Pune**, **Delhi**, and **Chennai** as the best expansion cities, improving the efficiency of decision-making by 30% and optimizing location selection based on 15+ key metrics.

Skills

Languages — SQL, Python, R • Tools — Power Bi, MS Excel, Tableau, Pandas, NumPy, SciPy, Matplotlib • Database — PostgreSQL, SQLite, MySQL • Cloud — Azure • Big Data — Spark

Certificates

SQL for Data Analytics ☑