Asparsh Raj

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EDUCATION

Sarala Birla University **Sept, 2022 – Aug, 2025**
*BCA - **CGPA - 8.7*** *Ranchi, India*

PROJECTS

Skill Mapper - Job Skills Visualization | Tech Stack:-Python, Power BI, Playwright **Mar, 2024**

- The project involved developing a comprehensive data engineering solution aimed at analyzing evolving skill trends within the job market. Leveraging expertise in Python, Power BI, and Playwright, an end-to-end system was conceptualized and implemented to aggregate job-related data by title and location, enabling insightful visualizations of market demands.
- Recognizing the inefficiencies of manual data collection, a robust data extraction script was engineered utilizing Python, Playwright, and advanced web scraping techniques. This approach significantly reduced extraction time by 67%, ensuring real-time access to vital job market data.
- Meticulous data cleaning and transformation procedures converted raw data streams into over 800 meaningful data points, ensuring the accuracy and reliability of subsequent analyses.
- Applying fundamental data modeling principles, the dataset was transformed into a highly efficient Star Schema, optimizing querying capabilities and facilitating seamless data visualization. The resulting interactive Power BI dashboard provided stakeholders with actionable insights across six distinct dimensions of job market dynamics.
- Rigorous adherence to industry-standard practices, including data normalization conventions and the prioritization of ACID properties, ensured data integrity and consistency, forming a solid foundation for reliable analyses.

PySpark script for Batch Data Processing | Tech Stack:-Python, PySpark, Databricks **Oct, 2023**

- The initiative involved designing and implementing a streamlined data pipeline for the extraction and transformation of weather data sourced from open APIs. Harnessing the power of Python, PySpark, and Databricks demonstrated self-motivation and problem-solving skills in creating a scalable solution for efficient data processing.
- Recognizing the potential for efficiency gains, a scalable data processing script was developed using PySpark, resulting in a significant 43% reduction in the time required for manual data transformation, enhancing the ability to derive timely insights from incoming data streams.
- Aggregating and analyzing hourly weather data spanning over seven days generated valuable insights into key weather indicators. These insights were visualized through Power BI dashboards, providing stakeholders with actionable information for informed decision-making.
- Upholding the highest standards of coding excellence, adherence to PEP 8 coding conventions prioritized code readability and maintainability, streamlining collaboration and facilitating future project maintenance.
- Meticulous documentation of the project's development process provided clear insights into problem-solving strategies, ensuring accessibility for future reference and collaboration.

SKILLS

Languages: Python, SQL, C++, JavaScript, Java
Developer Tools: VS Code, Git, GitHub
Technologies/Frameworks: MySQL, PostgreSQL, ETL, Power BI, PySpark, Apache Kafka, Pandas, Numpy, Matplotlib, BeautifulSoup, Linux, Bash Scripting, Web Scraping, Playwright
Coursework: Data Structures & Algorithms, Software Engineering, Database Management System (DBMS)
Other Skills: Problem Solving, Analytical Thinking, Written Communication, Verbal Communication

CERTIFICATIONS

- Google Cloud Data Engineer Professional Certificate - Coursera
- IBM Data Engineering Professional Certificate - Coursera