

Siddharth Solanki

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Education

San Jose State University

Master of Science (MS) in Data Analytics

San Jose, CA

Aug. 2022- Present

JECRC University

Bachelor of Engineering (BS) in Computer Science

Jaipur, RJ, India

Aug. 2017 – July 2021

Technical Skills

Programming Languages: Python, R, SQL (MySQL) and NoSQL (MongoDB, Neo4J)

Data Analysis & Visualization: Excel, Tableau, PowerBI, matplotlib, seaborn, Pandas

Big Data Technologies: Google BigQuery, Amazon Redshift (AWS)

Other Technologies: Apache Spark, JIRA, Regression Analysis, Time Series Forecasting, Real-Time Analytics, Natural Language Processing (NLP), Clustering, Decision Trees, Scikit-learn, TensorFlow, LLM

Experience

Data Analyst

Aug. 2021 - June 2022

First Alliance Bank

Lusaka, Zambia

- Spearheaded a comprehensive customer churn rate analysis project for presentation to the Zambian Revenue Authority. Developed and implemented effective strategies resulting in a 20% increase in customer retention.
- Innovatively enhanced the Oracle Database query performance by 25%, leading to faster data access and more efficient decision-making, complemented using PowerBI for advanced data visualization that supported the bank's strategic planning.
- Played a pivotal role in implementing a mobile Point of Sales application, creating user materials, and conducting training sessions, which led to a significant 36% reduction in user-generated support queries.

Data & Systems Analyst Intern

Jan. 2021 - July 2021

Surya Biofuels Ltd.

Lusaka, Zambia

- Improved a vehicle tracking system through data analytics, increasing supply chain accuracy by 31.5% and improving overall operational efficiency. Revitalized the vehicle tracking system through targeted data analytics, achieving a notable 31.5% increase in supply chain accuracy and enhancing overall operational efficiency.
- Executed strategic optimizations to the company's ERP system, utilizing data-driven approaches to realize a 22% increase in system performance and throughput.
- Conducted thorough data evaluations to monitor and assess system performance, effectively identifying anomalies and providing actionable recommendations for process improvements.

Network Analyst Intern

July 2019 - Aug 2019

Airtel

Lusaka, Zambia

- Collaborated with the network team to analyse customer usage patterns and system performance, leading to a 13% improvement in network efficiency and enhanced stability through informed upgrades and maintenance planning.

Projects

Household Waste Management System | Python, ML, Computer Vision, LLM

Aug. 2023 – Present

- Developed an advanced waste categorization system using InceptionResNetv2, YOLOv8, MobileNetv2, ResNet-50, and Xception, achieving 90% accuracy in waste identification and classification, with a target to achieve accuracy greater than 95% across various categories like organic, recyclable, and hazardous etc.
- Integrated the system with a Language Model (LLM) to provide actionable recommendations for waste disposal, recycling, upcycling, or donation, enhancing the tool's practical utility in sustainable waste management.
- Delivered key components including robust classification and object detection models, a user-friendly real-time object classification interface, and integration with external resources such as the Google Maps API, leading to an estimated 40% decrease in improper waste handling and management at the household level.

Social Media Post Popularity Prediction | Python, ML, DL, Database management

Aug. 2023 – Dec. 2023

- Developed an innovative deep learning and machine learning model to predict social media post popularity, integrating a comprehensive dataset and focusing on the Social Network Effect for enhanced digital marketing strategies.
- Utilized advanced NLP and ML techniques to prioritize data relevance, leading to significant improvements in predicting post-performance, resulting in a 20.5% increase in prediction accuracy over existing models.
- Achieved outstanding recognition by securing the 1st position on the SMP Challenge leaderboard with the ML and NLP framework, and a top-10 position with the Deep Learning Framework, demonstrating the model's practical effectiveness.

Bay Area Flood Prediction | Python, AWS, SQL

Jan. 2023 – May. 2023

- Spearheaded the development of a machine learning model for flood forecasting in the Bay Area with an accuracy of 85%, addressing the challenge of analysing complex weather patterns and historical data.
- integrated real-time weather forecasts and historical flood records into the model. Executed the project on AWS with a focus on delivering precise, zip-code level forecasts through an advanced CI/CD pipeline with a 50% faster data processing time, resulting in the model significantly enhanced prediction accuracy, proving instrumental in local flood preparedness and response strategies.