

Siddharth Solanki

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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 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.

Education

San Jose State University

San Jose, CA

Master of Science (MS) in Data Analytics

Aug. 2022- May 2024

JECRC University

Jaipur, RJ, India

Bachelor of Engineering (BS) in Computer Science

Aug. 2017 – July 2021

Projects

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

Aug. 2023 – Present

- Developed a waste categorization system using advanced machine learning and deep learning models, achieving 90% accuracy in waste identification and classification, with a target to achieve accuracy greater than 95% across various categories.
- Integrated the system with a Large Language Model, to provide actionable recommendations for waste disposal and recycling, enhancing the tool's practical utility in sustainable waste management.
- Delivered key components including robust classification and object detection models, a user-friendly UI, and integration with Google Maps API, leading to an estimated 40% decrease in improper waste handling and management at 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, Amazon Web Services, 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, utilizing AWS with a focus on delivering zip-code level forecasts through a CI/CD pipeline with a 50% faster data processing time, resulting in significantly enhanced prediction accuracy, crucial in local flood preparedness and response strategies.

Technical Skills

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

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

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

Other Technologies: Apache Spark, JIRA, Natural Language Processing (NLP), Scikit-learn, TensorFlow, LLM