RAAGA SINDHU MANGALAGIRI

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EXPERIENCE

Northeastern University – Boston, MA Machine Learning Analyst – NASA

Jan 2024 - Aug 2024

- Engineered a machine learning pipeline for well location predictions with 87% accuracy, leveraging geospatial and tax data to inform high-stakes decision-making
- Conducted advanced EDA and feature engineering, revealing patterns in property values and structural data that improved model reliability by 20%
- Designed and implemented an ETL pipeline using Dask and Parquet, reducing data processing times from 45 minutes to seconds, accelerating analysis workflows
- Deployed models on Vertex AI, integrating batch predictions into BigQuery, enabling seamless data extraction and analysis for stakeholders
- Created interactive visualizations using Tableau to present geospatial insights, simplifying complex datasets for non-technical stakeholders and improving collaboration
- Presented actionable insights to NASA stakeholders through KPI-driven dashboards and technical reports, aligning project outcomes
 with strategic goals

Northeastern University - Boston, MA

Sep 2023 – Dec 2023

Graduate Teaching Assistant - Computation and Visualization

- Facilitated interactive workshops on data wrangling and visualization, enhancing student project outcomes with a 15% improvement in actionable insights
- Provided guidance to over 100 students on data analysis, visualization techniques, and storytelling with data using Tableau and Power BI

Tata Consultancy Services – Nagpur, India Data Analyst – Business Intelligence Team

Jul 2021 - Aug 2022

- Streamlined data quality and operational efficiency by resolving 95% of Salesforce data issues within SLA, ensuring accurate and timely insights for stakeholders
- Automated Salesforce workflows and integrated JIRA, reducing manual processes by 30% and enhancing demand planning for procurement teams
- Optimized financial analysis by extracting and analyzing datasets via SQL and Excel, improving resource allocation efficiency by 20%
- Created KPI dashboards and performed data manipulation to track demand patterns, increasing forecast accuracy by 25% for Metso and Neles projects

PROJECTS

Telecom Device Upgrade Prediction - Python, GCP, Airflow, Looker | Link

- Designed and deployed a scalable pipeline using Google Cloud Storage, Airflow DAGs, and Vertex AI AutoML, automating device upgrade predictions and improving model accuracy by 10%
- Utilized BigQuery for efficient data storage, querying, and integration of batch predictions, enabling real-time decision-making and seamless business workflows
- Performed feature engineering, A/B testing, and exploratory data analysis (EDA) on demographic and device-related data, enhancing predictive capabilities and supporting customer retention strategies
- Built interactive Looker dashboards to track KPIs and deliver actionable insights on customer churn and upgrade trends, improving operational efficiency and decision-making

EDUCATION

Northeastern University - Boston, MA
Master of Science in Data Analytics Engineering

Dec 2024

Sreenidhi Institute of Science and Technology - Hyderabad, India Bachelor of Science in Electronics and Computer Engineering

Jul 2021

TECHNICAL SKILLS

Programming & Libraries - Python (Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Plotly), SQL, R

Data Engineering - Dask, Airflow DAGs, MLflow, ETL Pipelines

Cloud Platforms - Google Cloud Platform (BigQuery, Vertex AI, GCS), Azure, AWS (EC2, S3), Docker

Data Visualization - Tableau, Power BI, Looker, Flourish

Tools & Expertise: - Salesforce, JIRA, GitHub, Excel, Data Wrangling, KPI Tracking, Agile