MOHIT MALU

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PROFESSIONAL SUMMARY

Data Scientist with hands-on experience in Python, ML modeling, and big data analysis. Skilled in using advanced algorithms to derive actionable insights from structured and unstructured datasets.

SKILLS

- **Programming Languages:** Python, SQL, Shell Script, R, MATLAB.
- ML & Data Science: Scikit-learn, Pandas, NumPy, ML Pipelines
- Big Data: Spark, Hadoop, Sagemaker AI, NLP
- Visualization: Matplotlib, Seaborn, Power BI, Tableau

PROFESSIONAL EXPERIENCE

San Diego State University

Research Assistant: 08/2024 - Present

San Diego, CA

- o Analyzed foot traffic data using Python (pandas, NumPy), performed regression and time-series modeling to evaluate business success.
- Developed ML models using scikit-learn and clustering (KMeans) to predict regional mental health trends based on survey data.
- o Cleaned, visualized, and interpreted datasets using pandas, Seaborn, and Tableau; presented insights via dashboards.

Akshay Embedded Systems Pvt. Ltd.

Data Scientist: 08/2019 - 12/2021

Pune, India

- o Led exploratory data analysis and hypothesis testing on sensor and controller logs from Honeywell PI and SCADA systems to uncover patterns in system failures, latency, and usage behavior.
- Deployed supervised learning models in Python (scikit-learn) to detect anomalies in time-series performance data, improving early fault detection by 18%.
- Engineered features from raw sensor signals, controller states, and metadata to train predictive models for hardware failure risk and maintenance scheduling.
- Designed and deployed operational dashboards in Tableau to communicate insights to engineering and production teams, enabling real-time monitoring of system health.
- o Utilized AWS S3 and EC2 to manage model deployment workflows and scalable log ingestion pipelines for downstream analysis.

Junior Testing Engineer: 01/2018 - 08/2019

Pune. India

- o Conducted statistical analysis of embedded system test logs using Python and R, identifying trends and recurring faults across device families.
- o Built regression models and clustering-based diagnostics for system validation, reducing time to resolution in QA cycles.
- Deployed automated data wrangling scripts to clean and normalize historical logs, increasing the quality of training datasets for ML tasks.

• Seven Mentor Pvt. Ltd.

Intern Engineer: 07/2017 - 12/2017

Pune, India

- o Conducted SQL data analysis and created optimized queries for efficient data management.
- o Supported diverse database administration tasks, including data retrieval, manipulation, and optimization.
- $\circ \quad \text{Applied SQL expertise to extract actionable insights, directly contributing to improved business decisions.}$

PROJECTS

Professional Project:08/2018 – 02/2019

Pune, India

Predictive Maintenance using PI Controller Logs, Akshay Embedded Systems Pvt. Ltd.

- o Modeled fault events from historical controller data using time-series forecasting and anomaly detection algorithms.
- o Deployed a prototype ML pipeline integrating Honeywell logs via AWS S3, supporting near-real-time inference and Tableau-based alerting.

• Academic Project:08/2022 - 12/2022

San Diego, CA

Mental Health Attitude across Geography

- o Engineered a comprehensive big data pipeline to analyze geographic and demographic trends in mental health across distributed systems.
- Built a Python-based ML model to study variations in mental health by work environment and region, earning third place out of 15 teams in the Decision Support Systems class.

EDUCATION

• Master of Science: Information Systems,08/2022 - 05/2024

San Diego State University, CA. Aggregate: 3.6 GPA

Coursework: Enterprise Database Management, Business System Analysis and System Design, Information Security Management, Project Management.

Bachelor of Engineering: Electronics and Telecommunication Engineering, 08/2013 – 05/2017

Pune University, India. Aggregate: 3 GPA

Coursework: Electronic Product Design, Network Management, Signals and Systems, Digital Signal Processing, Image Processing, Machine Learning.

CAMPUS INVOLVEMENT

Student Assistant :05/2023-05/2024

San Diego, CA

Office of Housing and Residential education

o Served as the primary liaison for student residents, addressing queries and resolving issues while demonstrating strong problem-solving skills.

COMMUNITY LEADERSHIP AND ENGAGEMENT

• Gunvantiben Thakkar NGO, Manager, 02/2022 – 06/2022