Saloni Mourya

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EDUCATION

Arizona State University, Tempe, AZ May 2025
Master of Science, Information Technology 3.96 GPA
Relevant Coursework: Analyzing Big Data, Database management Systems, Data Visualization, Natural Language Processing

Rajiv Gandhi Proudyogiki Vishwavidyalaya, India Aug 2017 – Jun 2021
Bachelor of Technology, Computer Science and Engineering 3.70 GPA

TECHNICAL SKILLS

- **Languages: Python** (NumPy, Pandas, Scikit-learn, Plotly, Matplotlib, Seaborn, SciPy, NLTK), JavaScript, **SQL**
- **Data Science and Analytics:** Machine Learning (Regression, Decision Trees, Clustering), Predictive Modeling, **Time Series Analysis**, Data Wrangling, Statistical Analysis, Data Preprocessing
- **Visualization/Big Data Tools:** Tableau, Power BI, Postgres, **ETL Pipelines**, AWS, Git, JIRA, Databricks
- **Certifications:** Tableau for Data Science – Udemy, Skillsoft Badges (Release & Sprint Planning, Agile Development – Scrum)

PROFESSIONAL EXPERIENCE

Application Development Analyst Dec 2022 – Jul 2023
Accenture Pune, India

- Developed **TensorFlow**-based machine learning models to predict user errors, enhancing prediction accuracy by 15%
- Designed and implemented ETL pipelines using Python and SQL, automating data extraction, transformation, and loading into **Tableau**, boosting dashboard performance by 50%
- Built **ETL pipelines** using **Python** and **SQL**, leveraging **AWS** (Lambda, S3, RDS) to automate data workflows, reducing processing time by 40%
- Applied **clustering and regression analysis** to inform business decisions and forecast trends, driving strategic insights
- Applied statistical **time-series techniques (ARIMA, Exponential Smoothing)** for data-driven financial insights
- Implemented optimization algorithms for scheduling and resource allocation, resulting in a 20% reduction in processing time
- Utilized Python to develop algorithms that enhanced scalability of critical backend functions, boosting system performance by 25%

Application Development Associate Oct 2021 – Dec 2022
Accenture Pune, India

- Developed **Python** (Pandas, NumPy) scripts to clean and process raw datasets from **SQL** databases, enabling faster data preparation for **predictive modeling** and analysis
- Automated the collection of data from over 150 sources, streamlining workflows and reducing manual efforts by 30%
- Applied **regression** techniques to identify key trends in operational data, improving forecasting accuracy by 10% and supporting data-driven decision-making for clients
- Diagnosed and resolved data inconsistencies in complex datasets through effective **debugging** of Python scripts, reducing bug resolution time by 14%
- Supported data visualization efforts using **Tableau** to create interactive dashboards for stakeholders, enhancing the accessibility of business insights and reducing report turnaround by 25%

PROJECT WORK

Frailty Prediction Model

- Developed **Python**-based code to process and summarize over 150K **time-series records** from room sensors, generating patient-level daily features like duration, distance, and velocity percentiles (P50–P95), aimed at predicting early frailty detection
- Integrated sensor data with clinical frailty metrics (Frailty Phenotype Score, CGA_FI), enabling **multimodal analysis** using **Pandas, NumPy, and Scikit-learn** for correlation, **K-Means clustering**, and **regression modeling (OLS & logistic)**
- Achieved 84% classification accuracy for frailty phenotype prediction using **logistic regression** with precision-recall threshold tuning, despite imbalanced clinical labels and limited dataset size
- Engineered custom mobility indicators and visualized patient segmentation using **Seaborn** and **Matplotlib**, enhancing interpretability with **ROC, PR curves**, and cluster scatter plots

Senior Living Facility Care Delay Analytics

- Analyzed pendant alarm response times for a senior living facility to evaluate care quality, aiming to identify delays in caregiver responsiveness and improve overall resident safety
- Processed and **transformed data** in **Excel**, engineering custom **metrics** like **80th percentile** and **weighted averages**, and categorized calls based on response thresholds (≤10min, >10min)
- Developed interactive **visualizations** highlighting peak delay hours (e.g., 6AM, 8PM), resulting in recommendations for staffing adjustments and improved care responsiveness