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, **Snowflake**, **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, SQL,** and **Snowflake** to automate data extraction, transformation, and loading for business dashboards in **Tableau,** boosting dashboard performance by 50%.
- Engineered scalable **ETL** workflows by integrating **AWS** services (Lambda, S3, RDS) with **Snowflake**, reducing overall data ingestion and 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

Time-Series Gait Analysis for Early Intervention in Senior Living

- Developed Python-based pipelines to analyze large time-series datasets from room sensors, generating resident-level mobility features such as duration, distance travelled, and gait velocity.
- Integrated sensor-derived movement metrics with health-related indicators to enable multimodal analysis using correlation matrices, K-Means clustering, and regression modeling (linear and logistic).
- Achieved 84% classification accuracy in predicting mobility risk levels using threshold-tuned logistic regression, to address class imbalance challenges across a limited sample size.

Senior Living Facility Nurse Call Response Time 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.
- Characterized call density and 80th percentile response time by hour of day and synthesized a weighted average response time that accurately depicts daily care staff performance.
- Developed interactive visualizations highlighting peak response time hours, resulting in recommendations for optimized shift structure and staffing levels to improve care and to reduce labor cost.