SHREYA SARAVANAN

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EDUCATION

Northeastern University, Boston, MA　　　　　　　　　　　　　　　　　　Sep 2022 - May 2024
Master of Science in Engineering Management (Data Track)　　　　　　　　　　**GPA: 3.95/4.0**
- **Coursework:** Data Mining, Data Management & Database Design, Data Visualization, Probability & Statistics.

Amrita Vishwa Vidyapeetham, Coimbatore, India　　　　　　　　　　　　July 2018 - April 2022
Bachelor of Technology in Electronics and Communication Engineering　　　　　**GPA: 3.14/4.0**

WORK EXPERIENCE

Amdocs (T-Mobile), Alpharetta, GA　　　　　　　　　　　　　　　　　　Jun 2024 – Sep 2025
Quality Assurance Analyst | Data Analysis, Oracle SQL, API Testing, Data Monitoring, Test Design
- Leveraged SQL queries to extract, filter, and validate large datasets for system testing and root cause analysis of data anomalies in T-Mobile's postpaid billing platform.
- Designed and executed 350+ test cases focused on validating billing accuracy, usage metrics, and edge-case scenarios, reducing data discrepancies by 30% in QA cycles.
- Conducted end-to-end API testing using Postman, verifying 50+ endpoints by parsing and validating JSON/XML responses to ensure accurate customer data transmission between microservices.
- Monitored DAG executions in AWS Airflow, identifying bottlenecks and resolving task failures, improving data pipeline reliability and reducing SLA breaches by 20%.
- Created and presented 22+ test design documents covering data flow, transformations, business logic, and collaborated cross-functionally to report and track 40+ critical data defects in systems using Splunk, Cloudera, Kafka and Couchbase.

TruStone Financial Credit Union, Bloomington, MN　　　　　　　　　　　May 2023 – Aug 2023
Data Analyst |Microsoft SQL Server, Python, Power BI, SSRS, SSIS
- Created a comprehensive Data Dictionary for a widely used product, streamlining dataset creation by providing a centralized resource, resulting in significant time savings for analysts and developers.
- Automated monthly data mapping using Python, enhancing efficiency by approximately 10%. Implemented Excel data mapping, SQL extraction using ODBC connection. Served as a Scrum Master, tracking project progress on Jira boards, and documenting progress on Confluence pages, improving team coordination and project transparency.
- Revamped marketing precision by optimizing SQL queries to exclude non-targeted categories and developed a self-service Power BI report to improve data management and payment tracking.

Nestle, Chennai, India　　　　　　　　　　　　　　　　　　　　　　　Apr 2021 – Aug 2021
Machine Learning Intern |R, Python, PCA, Clustering
- Investigated procurement use case dataset, particularly examining instances where transactions occurred without purchase orders.
- Utilized RStudio for data preprocessing and feature selection, and Python for advanced analytics/analysis, employing PCA to reduce dimensionality and clustering algorithms to identify anomalies from historical violation data. Presented clustering visualizations.

Forsk Coding School, Chennai, India　　　　　　　　　　　　　　　　　Dec 2020 – Jan 2021
Data Analyst Intern |Python, Dash, Pandas, Flask
- Analyzed a comprehensive dataset of 190,000+ records from the Global Terrorism Database using Python for exploratory data analysis, identifying key trends and patterns in terrorism incidents worldwide.
- Designed and developed a user-friendly interactive web dashboard with Python libraries Dash and Pandas, featuring dynamic callbacks and customizable dropdown menus to enable users to search incidents, explore patterns, and support predictive analysis decisions.

PROJECT EXPERIENCE

Data Management and Database Design Project: Job Application　　　　　　Sep 2023 – Dec 2023
- Designed and developed a normalized SQL Server database for a Job Application Tracker, implementing tables, constraints, data encryption, and views to ensure data integrity, structure, and security using T-SQL and encryption techniques.

Analysis and Visualization of Depression Dataset　　　　　　　　　　　Jan 2023 – April 2023
- Utilized Python (Pandas, Matplotlib, Seaborn) for data cleaning, outlier handling, and visualization, and developed an interactive Tableau dashboard with advanced plots (e.g., violin plots) to analyze key factors influencing depression

Statistics Project: Layoffs 2022 Dataset Analysis　　　　　　　　　　　Sep 2022 – Dec 2022
- Conducted exploratory data analysis on a 2022 layoffs dataset using Excel, applying Z-test hypothesis testing and visualizations (histograms, box plots, pie charts) to identify key factors influencing post-pandemic layoffs.

Deep Learning Assessment of Effectiveness of Arm-Rehabilitation Exercises　Jan 2022 – Apr 2022
Skills: TensorFlow, PyTorch, Flask, MediaPipe, OpenCV, ConvLSTM, LRCN, GCN, MATLAB, Python
- Engineered a real-time rehabilitation assessment system consolidating ConvLSTM and LRCN-based architectures for exercise classification with 95%+ accuracy, and built web application for webcam-enabled analysis using MediaPipe for pose detection.

TECHNICAL SKILLS

- **Programming Languages:** Python, R, SQL (Oracle SQL, Microsoft SQL Server, PostgreSQL, NoSQL (Couchbase, Cassandra)
- **Frameworks and Libraries:** PyTorch, TensorFlow, Keras, Scikit-Learn, MediaPipe, Numpy, Pandas, Matplotlib, Seaborn, Plotly, Dash, Flask
- **Big Data & Data Engineering Tools:** AWS Airflow, Kafka, Cloudera, Splunk, SSIS
- **Tools and Platforms:** Postman, Tableau, Power BI, SSRS Report Builder, Jira, Confluence, Agile Scrum, MS Project, ServiceNow,
- **Certifications:** Google Data Analytics Professional Certificate (Coursera), Cryptocurrency Foundations, Blockchain: Beyond the Basics