Jyothsna Kaamala

Data Analyst

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Detail-oriented Data Analyst with a Master's in Data Science from NJIT. Proficient in Python, R, SQL, and advanced data visualization tools like Tableau and Power BI. Demonstrated ability to create interactive dashboards and comprehensive data-driven reports. Experienced in exploratory data analysis and feature engineering, with a strong foundation in applied statistics and data management. Proven success in translating complex data into actionable insights for diverse audiences.

Skills

Programming Languages: Python, SQL, R, Java
Frameworks: Express, FastAPI, Flask
Data Management: NumPy, Pandas, Scikit-learn, Matplotlib, MySQL, PostgreSQL, Tableau, PowerBI, Jupyter, AWS

Professional Experience

Uhnder Inc | Software Quality Assurance Engineer **May 2020 - Jun 2022**

- Collaborated with software experts to validate production software for Uhnder SOCs & Radar Systems, including hardware pipelines. Implemented system-level tests, ensuring functionality and performance of targeted use cases.
- Analyzed system requirements meticulously, leading to the generation of test plans for various use cases. Automated crucial aspects of software development such as building, testing, and deploying using JENKINS/groovy scripts.
- Devised special-purpose hardware pipelines, enhancing system efficiency and throughput. Assured high-quality software production, contributing to optimal operation of Uhnder SOCs and Radar Systems.

Projects

Visualizing Institutional Rankings using Tableau **Jan 2024 - May 2024**

- Developed a comprehensive interactive dashboard with three distinct views to provide insights into university diversity, costs for in-state students, and average SAT scores of admitted students.
- Employed visual encoding and design best practices to create compelling visualizations within each view, including interactive maps, scatter plots, and bar charts, making the data engaging and easy to interpret.
- Built interactive filters, highlighting, and drill-down functionality to enable users to dynamically explore the rankings data and compare metrics across different universities within the dashboard.

Cafe Delight Website using AWS Cloud Services **Sep 2023 - Dec 2023**

- Developed a dynamic cafe website utilizing a microservices architecture, ensuring scalability and maintainability.
- Implemented the project on AWS, leveraging services such as EC2, API Gateway, Cognito, Lambda, RDS, IAM, SES, and S3 to create a robust and cost-effective cloud infrastructure.
- Utilized RESTful APIs for seamless communication between services, streamlining operations.

Predicting Water Potability using Python and Machine Learning Models **Jan 2023 - May 2023**

- Performed exploratory data analysis on a dataset of 3,276 water quality metrics to engineer features for prediction, using Pandas and Matplotlib in Python.
- Optimized a machine learning pipeline for water potability classification that scaled to a 1.2GB dataset, utilizing Scikit-Learn for data preprocessing techniques including transformer functions for handling outliers and normalization.
- Trained classification models including SVM, KNN, Logistic Regression and Random Forest on AWS EC2 to support rapid iteration. Improved weighted F1 score from 82% to 93% through hyperparameter tuning and cross-validation.

Online Office Furniture Store using Node.js and PostgreSQL **Sep 2022 - Dec 2022**

- Designed a PostgreSQL database on AWS RDS to support 100k daily product searches and 10k orders per day, normalizing tables for a 25% reduction in data redundancy.
- Built an inventory management API with Node.js and Express serving CRUD operations on the database for internal dashboard. Reduced backend latency by 35% through indexing and query optimization.
- Deployed the Node.js application to AWS Elastic Beanstalk to handle automatic scaling, load balancing and monitoring.

Education

New Jersey Institute of Technology | M.S Data Science (GPA: 3.65 / 4.0) **Sep 2022 - May 2024**