Mayuri Sampathgiri

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EDUCATION

BS in Computer Science   May 2024
George Mason University   *Fairfax, VA*
- Relevant coursework - Data Structures and Algorithms, Database Systems, Software Engineering, Networking, Secure systems and Programming, Introduction to Cryptography, Operating Systems, Data Mining, Natural Language Processing, Computing for Scientists, Probability & Statistics, Statistical Packages

SKILLS

Programming: Python, Java, R, JavaScript, SQL (MySQL, PostgreSQL), MATLAB, SAS
Data Processing & Analysis: NumPy, pandas, scikit-learn, TensorFlow, Keras
Data Engineering:: SQL, NoSQL (MongoDB, Cassandra), Hadoop
Machine Learning: Clustering, Decision Trees, Neural Networks, Regression Analysis
Tools: Git/GitHub, Jupyter, Eclipse, VSCode, Docker, Excel (Data Analysis)

EXPERIENCE

AI Engineer Intern | *DigitalQ Inc.*   Oct 2024 - Present
- Assisted in developing and deploying AI-powered chatbots using natural language processing (NLP) to meet client-specific business requirements.
- Supported cross-functional teams in gathering requirements, integrating AI solutions, and testing functionality.

Python Web Developer Intern | *Caladan Consulting*   May 2023 - Aug. 2023
- Developed backend services using Python and Django to manage and process large data sets for operational systems.
- Leveraged advanced SQL and NoSQL databases to ensure high-performance data management, with a focus on data quality and integrity.

Learning Assistant | *Statistics Department GMU*   Jan. 2022 – Jul. 2022
- Assisted in the development of data-driven educational content by converting R-based statistical code into Python for better student understanding and application.
- Guided students in the analysis of large data sets, focusing on statistical methods, data manipulation, and quality controls.

PROJECTS

Sentiment Analysis of Yelp Reviews | NumPy, pandas, scikit-learn, NLTK
- Designed and developed a machine learning model for sentiment analysis using KNN and various feature extraction techniques (TF-IDF, chi-squared).
- Applied advanced data transformation and preprocessing techniques to clean and manipulate text data for classification.
- Achieved 72% accuracy, utilizing statistical methods to refine model performance through cross-validation and hyperparameter tuning.

Green Card Renewal App | Java, JavaFX, Maven, JUnit, Git, Agile
- Collaborated in an Agile team to manage the data layer for a green card renewal application, ensuring data integrity and seamless integration. Utilized JavaFX to develop a user-friendly interface and implemented unit tests using JUnit and contributed to iterative project improvements through Agile sprints.
- Utilized to automate testing and deployment, ensuring continuous integration and delivery of the application.

Java Database Command Line Project | Java, JDBC, Oracle SQL
- Developed a command-line Java application for querying and updating a database of academic papers using JDBC and Oracle SQL, with functionalities for data viewing, searching by ID, and URL updating from a CSV file.
- Ensured robust error handling and secure database connection protocols, enhancing user interaction and efficient database management.

Minesweeper Classic | Java, Java Swing
- Developed a personal Minesweeper game project, employing advanced array manipulation techniques to construct and manage a dynamic minefield grid, enhancing problem-solving and programming skills.

News Api | HTML, CSS, Javascript, News-API
- A simple website that fetches news articles using the News API based on a user query.