






Mayuri Sampathgiri

AI Engineer

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EDUCATION

BS in Computer Science

George Mason University

May 2024

Fairfax, VA

- Relevant coursework - Data Structures and Analysis of 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

Languages: Java, Python, HTML5, CSS3, JavaScript, R, Matlab, SAS

Databases: SQL (MySQL, PostgreSQL) & NoSQL (Cassandra, MongoDB)

Tools: Git/Github, Eclipse, VSCode, Excel (Data Analysis)

Libraries & Frameworks: NumPy, pandas, Matplotlib, sklearn, Tensorflow, keras, JUnit

Certifications: Python3, Java - Codecademy, IBM AI Developer - Coursera (Ongoing)

EXPERIENCE

Software Engineering Fellow | Headstarter AI

Jul. 2024 - Present

- Building 5 AI projects in 5 weeks, demonstrating skills in AI development, data engineering, and software engineering.
- Will transform a startup's current backlog to meet business requirements for the final project, demonstrating practical application and impact.

Python Web Developer Intern | Caladan Consulting Inc.

May 2023 - Aug 2023

- Developed and launched the front-end of saugatax.ca and barosatax.ca using HTML, CSS, and Django, enhancing user experience and functionality.
- Implemented and managed the back-end using Django and NoSQL databases, optimizing performance, security, and scalability.

Learning Assistant | Statistics Department GMU

Jan. 2022 – Jul. 2022

- Adapted and modified R code to Python for class lectures, facilitating the transition and comprehension of statistical concepts for students. Facilitated classroom discussions, graded assignments, and provided constructive feedback to enhance student understanding and performance.

Cashier and waitress | Punjabi by Nature

Jan. 2019 – Mar. 2020

- Managed cash transactions with precision and accuracy. Provided exceptional customer service in a busy restaurant setting. Took orders, served food and beverages, and ensured customer satisfaction.

PROJECTS

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.
- Implemented unit tests using JUnit to ensure code quality and contributed to iterative project improvements through Agile sprints.
- Utilized **Github Actions for CI/CD** to automate testing and deployment, ensuring continuous integration and delivery of the application.

Sentiment Analysis of Yelp Reviews | NumPy, pandas, scikit-learn, NLTK

- Developed a **sentiment analysis model using KNN** to classify Yelp reviews, incorporating TF-IDF Vectorization, chi-squared feature selection, and extensive text preprocessing with NLTK.
- Achieved a 72% accuracy rate through model fine-tuning and cross-validation, selecting Euclidean Distance for optimal performance.

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.

Cybersecurity Labs - Seed Security Labs | C, Python, Wireshark, Unix, Docker

- PKI (Public Key Infrastructure):** Gained practical experience in setting up and managing PKI systems, including certificate creation, distribution, and validation.
- TLS (Transport Layer Security) Security:** Conducted hands-on labs focusing on configuring and analyzing TLS protocols to ensure secure communication channels.
- Encryption:** Implemented various encryption algorithms, understood their strengths and weaknesses, and applied encryption techniques to secure data.

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.