Vedaant Patel

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EXPERIENCE

Developer Intern

June 2023 – August 2023

Farmers Insurance

- Automated vulnerability detection using Bash and Python scripting to reduce time from 3 days to 5 hours across all APIs, leading to faster response and improved security measures.
- Implemented REST APIs on MuleSoft to centralize information gathering for all APIs on the server, streamlining data management within an Agile software development framework.
- Collaborated with XFT to integrate the vulnerability detection process smoothly into the development pipeline, ensuring seamless and efficient operation.

PROJECTS

Satellite Image Segmentation | Python

- Implemented a UNet model to segment satellite imagery and identify civilizations without electricity.
- Hyper-tuned the UNet model using Wandb sweeps, resulting in a validation accuracy of 70%.
- Researched the IEEE GRSS 2021 dataset to identify optimal satellite bands to achieve higher segmentation classification accuracy.

Synq'd Mobile App | React Native, Expo, JavaScript, Node.js

- Developed a full-stack mobile application using with Node.js serving a REST API with React Native as the front-end.
- Integrated Spotify Web API to provide users real time playback, queue information, and support for automatic queuing functionality.
- Utilized web sockets for seamless integration between client and server resulting in minimal overhead.

Memory Allocator $\mid C$

- Built a memory allocator to simulate the process of dynamic memory management.
- Enhanced performance by implementing memory block coalescing, effectively preventing memory fragmentation and optimizing memory usage.
- Implemented a best-fit strategy to reduce memory fragmentation by 15%.

Minesweeper Solver $\mid C++$

 \bullet Programmed a minesweeper solver using DFS and backtracking to accurately solve problems in less than 3 minutes with an 80% accuracy.

SKILLS

Languages: Java, Python, C, C++, SQL, MySQL, JavaScript, TypeScript HTML, CSS

Frameworks: React, React Native, Node.js, Expo

Developer Tools: GitHub, Postman, Docker, Firebase, VS Code, IntelliJ, Eclipse, Jenkins, Heroku, MuleSoft

Systems: Windows, Unix, Linux

EDUCATION

University of California, Irvine

 $September\ 2022-June\ 2024$

Bachelor of Science, Computer Science

Related Coursework: Data Structures and Algorithms, Machine Learning, Databases, Information Retrieval

Santiago Canyon College

August 2020 – June 2022

Associate of Science, Computer Science

Related Coursework: Java Programming, Programming Concepts, Computer Architecture