Aditya Keerthi

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Skills

Languages/Frameworks: Python, C, C++, JavaScript, TypeScript, Node, React, Vue, Go, Rust, Solidity, SQL
Technologies: Git, Docker, AWS, Jenkins, Github Actions, TestingLibrary, Jest, Express, Flask, Firebase, OpenCV

Experience

Feroot Security, Software Engineering Intern — Aug 2022 – Sept 2022

- Implemented front-end features using **Vue.js** and learned **Agile development** through sprints with the dev team.
- Developed and automated unit tests using **TestingLibrary** and **Jest**, achieving **~80%** test coverage on the codebase.
- Participated in **Scrum**, building **communication** skills by presenting **creative** ideas to colleagues.

Feroot Security, Software Engineering Intern — July 2021 – Sept 2021

- Deployed user documentation using **DocsifyJS, Jenkins, Docker,** and **AWS**, providing technical support for **75+** clients.
- Developed software that reports external scripts tracking mouse movements on the front-end using **JavaScript.**
- Implemented a tool that tracks all domains connected to a company by performing a **reverse IP lookup** using **Node.js**

University of Waterloo, Research Intern — Nov 2020 – June 2021

Project – NeuroPET-M: A Multimodal PET Scan Platform as a Novel Diagnostic Tool for Neurodegenerative Diseases

- Conducted research on neuroimaging and improving diagnosis on diseases such as Alzheimer's and Parkinson's.
- Developed a diagnostic tool that produces a multimodal PET scan in 3-dimensions opposed to normal PET scans.

Projects

NeuroPET-M – Top 22 Science Fair Project in Canada — github.com/adityakeerthi/neuropet-m

- Developed a diagnostic tool that creates a 3D image based on multiple PET scans efficiently, using **Cython**.
- Implemented concepts such as **multithreading**, **image processing**, and **color difference** to reach a runtime of **<3 min**.
- Created **image processing** methods to effectively visualize biomarkers (3D points), using **Python, OpenCV,** and **Plotly**.

STEMComp – A Secure, Scalable, Full-Stack Web Application — github.com/adityakeerthi/stemcomp

- Built the front-end for login/signup, submission, and judging features for **150+** users using **HTML**, **CSS**, and **JavaScript**.
- Implemented a scalable backend with auth middleware using **Node** and **Express**, serving **250+** concurrent requests.
- Designed an effective schema for the database and stored **300+** documents in a **NoSQL** database using **Firebase**, **Node**.

NoDeSQL – A Decentralised NoSQL Database built on IPFS — github.com/adityakeerthi/nodesql

- Developed a database service that allows users to manage a NoSQL database in a **private**, **trustless** manner, using **IPFS**.
- Built multiple API endpoints to mimic a document-based NoSQL database and its methods, using **Node**, **Express**.

DeTrace – A Secure Contact Tracing App built with Ethereum — github.com/adityakeerthi/detrace

- Developed a secure contact tracing app that would improve the ability to stop the spread of COVID, using **Ethereum**.
- Implemented API endpoints, React components, and a BFS algorithm to detect COVID, using **Node**, **React**, and **Solidity**.

Education

University of Waterloo, Honours Software Engineering (BSE), Co-op — Sept 2022 - Apr 2027

- President's Scholarship of Distinction, Colonel Hugh Heasley Entrance Scholarship