Kumaran Ratnam

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Technical Skills

Languages:	Java, Javascript/HTML/CSS, SQL
Frameworks and Libraries:	Spring, NodeJS, Flask
Tools:	Git, Gradle, Postman, JIRA, Linux, AccelQ, Azure

Work Experience

Wells Fargo St. Louis, MO
(Software) Engineering Associate August 2021 - August 2024

- Contributed to a client monitoring banking platform using Java Spring Boot for a few months, gaining exposure to the framework, while also creating UI refinements with AngularJS.
- Built a new application from scratch using Salesforce Lightning, serving 1500 banking advisors across the country within the first 1.5 years of development.
- Leveraged Java with SF APEX to implement resilient backend functionality, and JavaScript to craft responsive Lightning Web Components (LWC), facilitating seamless execution of database commands.
- Led the effort to automate over 500 end-to-end tests in the Selenium-based testing environment AccelQ, covering smoke, regression and critical path tests, alongside API testing through Postman, resulting in an estimated 200 hours saved per release and a 60% reduction in overall testing time.
- Assisted in writing test plans, presented them to management for feedback, communicated insights to developers for implementation, and contributed to test framework development and defect tracking.
- Helped conduct Jenkins deployments, performed BlackDuck scans, found and fixed SonarQube errors and scheduled automated testing through CI/CD builds to maintain code security, and compliance with finance industry standards.

Cisco Systems San Jose, CA
Software Engineering Intern July 2019 - August 2019

- Created a Python-based tool for managing user access to a Power Distribution Rack (PDU) within a server, utilizing Nmap for subnet scanning and generating a list of PDU credentials.
- Developed a CLI tool using the pexpect module to anticipate and input CLI commands, allowing for efficient user access management.
- Acquired proficiency in automated systems, PDU operations, and consumer User Interface development technologies.
- Demonstrated proficiency in Python programming, network security, and system administration while developing tools for user access management and ESXi installation.

Projects

CAPSTONE: Root Applied Sciences Project *Python, NodeJs, React, MongoDB, Multithreading*
Developed a web application capable of handling and reading incoming data stream from a remote microbial air sensor, storing sensor data and playing it back to the user.

Power a Retinal Prosthesis by Harvesting Piezo Energy
Utilizing muscle contractions in the ocular muscles, theorized a way to harness the kinetic energy from these contractions using a small piezo electric sheet. The energy generated by the piezo could be affixed to a small retinal prosthesis that could provide vision to those with retinal visual impairment.

Visual Impairment Sensor and Feedback *C, AVR, Embedded Systems*
Built an embedded system to allow for a user to accurately measure a distance within an accuracy of 10cm, and have the system return feedback based on how far or close to the ideal value they are.

Awards and Certifications

Intel International Science and Engineering Fair: Provost Scholarship Intel

AZ-900: Microsoft Azure Fundamentals Microsoft
September 2022

Education

Arizona State University Tempe, AZ
BS Software Engineering August 2017 - May 2021