Faizan Mustafa Shaikh

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San Jose, CA

EDUCATION

San Jose State University	M.S. Software Engineering	GPA: 3.71/4	Aug 2022 - May 2024
Pune Institute Of Computer Technology	B.S Computer Science	GPA: 8.35/10	Jul 2015 - Jun 2019

SKILLS

- **Languages** C, C++, Java, JavaScript, Python, SQL, Bash, HTML, CSS
- **Databases & Tools** MongoDB, MySQL, Oracle, PostgreSQL, Microsoft SQL Server
- **Tools & Technologies** Vim, Git, Valgrind, IntelliJ, GDB, Wireshark, IDL Compiler, Active Directory
- **Web Technologies** React, SpringBoot, Angular, NodeJS

WORK EXPERIENCE

Esperanto Technologies | *Systems Software Intern* May 2023 - Present

- Used modern **C++** to create a **graphical command line representation** for Esperanto's performance monitoring tool.
- Enabled the utilization of the **Perf** performance monitoring tool on a **RISC-V** architecture by modifying boot-related code written in **C**
- Worked on setting up systems by **troubleshooting** and resolving **firmware**, **driver**, and **Linux kernel** conflicts.
- Gained practical experience with **RISC-V** and **x86 architectures** through work on high-performance computing

Veritas Technologies | *Software Engineer* Feb 2022 - July 2022

- Redesigned Veritas Volume Manager's logging mechanism across **Java, C++, C, and Python** code, resulting in improved timestamp granularity and a **25%** reduction in logging overhead.
- Used **C** and **C++** to apply **low-latency** programming techniques like **multi-threading**, **memory optimization**, and **network optimization**, resulting in **20%** increase in throughput for a mission-critical application
- Technologies / Skills- C, C++, Bash, Python, Operating System Development, CMake, Multithreading

Ryussi Technologies | *Associate Software Engineer* June 2019 - Feb 2022

- Reduced **RPC** module code size by **30%** using **C** and **C++** by implementing a state machine to handle **RPC** requests generically. Employed efficient memory management to optimize performance.
- Leveraging **operating system** concepts and **Linux system calls**, spearheaded implementation of an approach to permit file operations such as create, open, read, write and close on **SMB** shares mounted on a **macOS** client
- Added support for the AAPL context resulting in improvement in file enumeration speed by **70%** for SMB shares
- Technologies / Skills- C, C++, Python, GCP, Linux File Systems, Multithreading, low-latency programming

PROJECTS

- **Spartan Stay** (February 2023): Developed a **full-stack** web application with **React** for front-end and **Spring boot** with **MongoDB** for back-end. The platform aggregates data from multiple apartment websites using **Selenium** in close proximity to San Jose State University (SJSU) and provides a centralized solution for apartment searching
- **Campus Key NFC** (Dec 2022)**:** Developed an **IoT** access control solution for SJSU using **ESP8266** and **PN532 in SPI mode** NFC reader. Built **Android** app for user interaction and **Node+ExpressJS** server for authentication. Utilized NFC tech for secure data exchange between Android app and **IoT** module programmed in **Arduino C**.
- **Marcus Smart Home System** (Dec 2022): Developed a smart home automation solution to control appliances via phone or voice. Enabled Alexa and Google Home discovery with **AWS lambda** and **Google Cloud** functions. Used switchboard add-on IoT modules and **MQTT** to communicate with **Spring Boot** service on Ubuntu server.

HACKATHON

Hack for Humanity (2nd Runner Up) | Santa Clara University Feb 2023

Built an Android app that displays real-time people count and open store info to enhance safety on empty roads, with a backend developed using **Spring Boot** and **MongoDB**.