Simone **Motwani**

☐ (+1) 778-710-5908 | ✉ svm4@sfu.ca | 🔗 simonemotwani

Skills

Languages	C/C++, Java, Python, HTML/CSS, Haskell, Kotlin, React, TypeScript
Applications	Android Studio, Visual Studio, Git, Docker, Vim, Firebase, MongoDB
Experienced in	Object Oriented Programming, Unit testing
Project Management Methods	SCRUM, Extreme Programming, and other Agile methods

Work Experience

Canadian Undergraduate Journal of Cognitive Science   *Vancouver, British Columbia*

WEB DEVELOPER   *March - Present*

- Developed and maintained official website using React, TypeScript, and Tailwind CSS
- Migrated website from WordPress to modern React-based tech stack for improved performance and maintainability
- Built responsive, accessible UI components and page routing system with React Router
- Participated in weekly standups and sprint planning sessions with the editorial and web team
- Managed version control and collaborative development workflows using Git and GitHub

Rely On Logistics   *Vancouver, British Columbia*

SOFTWARE DEVELOPER   *April - Nov 2024*

- Converted existing web app into Android fleet management app with GPS tracking for 100+ deliveries, implementing XML layouts for responsive UI components
- Developed comprehensive truck and trailer detail views using Figma and MVVM architecture for an intuitive interface
- Integrated ML route classifier algorithms to optimize route planning and predict delivery times, reducing late delivery by 45%
- Implemented automated CI/CD pipeline using GitHub Actions and Docker to make the release cycle process efficient
- Participated in Agile methodologies sprint planning, and retrospectives to continuously improve development processes
- Fixed over 15 critical bugs in React web components through comprehensive QA testing, enhancing user experience

Technical Projects

Deny and Conquer | Python, Network Programming, Multi-threading

- Built UDP-based client-server application with custom messaging protocol supporting up to 4 concurrent network connections
- Implemented distributed resource management system with server-side validation and client synchronization
- Designed real-time network communication system handling concurrent drawing data transmission and game state broadcasting
- Developed network concurrency solutions including request queuing, lock management, and multi-client coordination
- Tested networked application performance across multiple network nodes with latency and packet handling considerations

UNIX Shell Implementation | C, Systems Programming

- Developed a fully functional shell program in C that executes user commands, implements process management, and handles signals
- Implemented shell features including foreground/background process execution, command history, and built-in commands (cd, pwd, exit)
- Created a robust memory management system with zombie process cleanup for background processes to prevent resource leaks
- Utilized system calls (fork, exec, wait) and signal handling for process management and SIGINT interruption

Group Chat Server & Fuzzing Client | C, Network Programming, Multi-threading

- Implemented a concurrent TCP/IP server using socket programming to handle multiple client connections simultaneously
- Designed and implemented a custom messaging protocol with two-phase commit for reliable message delivery
- Built a fuzzing client to test server robustness by generating and sending random messages
- Applied advanced systems concepts including multi-threading, synchronization, and network byte ordering

Education

Simon Fraser University   *Burnaby, British Columbia*

B.S. IN COMPUTER SCIENCE   *May 2022 - Present*