Marius Shepherd

Computer Science and Mathematics | 604-358-6373 | [Mail] | [Github] | [Website]

TECHNICAL SKILLS

Languages: Java/Kotlin, Python, C/C++, NoSQL, SQL, Swift, Dart
Frameworks: Node, Flask, Express, React, Flutter, JUnit
Developer Tools: Git, GitHub, Azure, Docker, Jira, Heroku, BLE, XCode, Firebase

WORK EXPERIENCE

Software Engineering Intern — Jan 2024 - August 2024
Cyberium Group — *Vancouver, BC*

- Developed a comprehensive security training application for a high-profile client, integrating seamless UI on React with a robust and scalable Node and Socket.io servers
- Utilizing Socket.io on Azure for seamless communication, optimized to handle and scale efficiently with over 400 concurrent client connections with minimal latency
- Ensured sufficient performance during concurrent through load testing and caching, and infrastructure engineering on Azure and Heroku

Computer Science Teaching Assistant — May 2024 – August 2024
University of British Columbia — *Vancouver, BC*

- Supported students and faculty in developing course materials and led interactive lab sessions for over 50 students, covering critical computing concepts
- Specialized in teaching low-level programming and system design, including topics such as ALU operations, memory management, C programming, and assembly translation
- Led the grading team, meticulously evaluating complex C code assignments, providing in-depth feedback on multi-threading, synchronization, and memory allocation techniques

PERSONAL AND PROFESSIONAL PROJECTS

SmartHealth Ring App | *Swift, Kotlin, Flutter, Bluetooth, MVVM, Firebase* — *Cyberium Group*

- Led the end-to-end development of an advanced Flutter app for a Bluetooth health device, driving seamless user interaction and data visualization
- Efficiently integrated native Kotlin and Swift Bluetooth functionalities into Flutter UI using method/event channels and MVVM pattern, ensuring smooth synchronization
- Implemented secure OAuth-based authentication, streamlining user onboarding, and robust data management
- Leveraged BLE GATT and bluetooth frameworks to properly program firmware and initiate various measurements
- Secured a top 50 position under Y Combinator, successfully pitching the app to over 30 investors

Cybersecurity Requirement Rationalization App | *React, Typescript, Flask, Docker, Azure* — *Cyberium Group*

- Led the creation of a full-stack, AI-powered application for security compliance analysis, optimizing ISO 27001 and SOC 2 audit processes
- Accelerated API responses and Flask data processing by 50% through advanced multi-threading and optimized chain-of-thought prompt engineering
- Streamlined development by architecting a CI/CD pipeline with Docker Compose on Azure Web Services, ensuring efficient deployment and scaling

Recall App | *React Native, Flask, Python, SQLite, OpenCV* — *nwHacks 2023*

- Teamed up for nwHacks to develop a React Native app to enhanced active recall using OpenCV-based facial recognition with over 95% accuracy.
- Built a facial recognition API in Flask, managing 1,000+ user profiles with SQLite.

EDUCATION

University of British Columbia — Sept 2022 - April 2026
Bachelor of Science, Combined Major in Computer Science and Mathematics — *Vancouver, BC*

- Dean's Honour List | GPA: 4.20 | UBC Wrestling | Top 25% CCC