

SKILLS

LANGUAGES: C/C++, Java, Python, Shell, Rust, Kotlin, Scala, C#, Verilog, Assembly

TECHNOLOGIES: Unix, RTOS, Android, Bluetooth, Docker, Git, Protobuf, iOS, LTE, Qt

WORK EXPERIENCE

Cisco Meraki

Firmware Intern

starting · Sept. 2020

Microsoft

Software Developer Intern

Jan. 2020 to May 2020

- Prototyped a new way of storing type information generated by the MSVC C++ Compiler
- Automated code generation for creating new types and for converting old to new type information
- Supported the new type system in compiler and linker while maintaining backwards compatibility

Software Developer Intern

May 2019 to Aug. 2019

- Developed an app from scratch using C++ and QML, capable of parsing the 3GPP 36.101 spec to automate parts of LTE CA development saving 1 month per product cycle
- Architected it to be extensible to future network technologies like 5G and different network simulators
- Developed a graph algorithm to reduce LTE CA test suite size by 43%, saving 150 execution hours

Athos

Firmware Developer Intern

Sept. 2018 to Dec. 2018

- Worked on an RTOS (in C) for nRF52 SoC and implemented BLE connection and service discovery
- Implemented smart charging, tools to support FCC certification and improved the OTA update service

North Inc.

Embedded Software Developer Intern

Dec. 2017 to July 2018

- Worked on the firmware (written in C/C++) based on Android Wear (now WearOS) for smart glasses
- Optimized the rendering engine to be 50% faster by memoizing computations
- Architected performant services to control the projector, to allow remote debugging of the glasses

Mobile Developer Intern

Apr. 2017 to Nov. 2017

- Developed Android (Java) and iOS (Swift) companion applications for smart glasses
- Implemented BLE connection, the over-the-air update service and device onboarding features

PROJECTS

Rust

Apr. 2020 to Current

- Working on supporting minimum capture in Rust closures ([RFC #2229](#)) as part of Capstone Project
- Contributed code, participated in design meetings and facilitated discussions between the project team and the Rust compiler team

EDUCATION

University of Waterloo · 4A Software Engineering

2016 to 2021

Relevant Coursework:

Computer Architecture, OS, Concurrency, Compilers, Databases, Networks, Security & Privacy, Algorithms