

## Employment

Software Engineer	ON Semiconductor	Jun 2018 - Present
<ul style="list-style-type: none"><li>• Embedded/Firmware/ Back-end development: C/C++   Qt   ARM   Bluetooth Low Energy (BLE)   UART   I2C<ul style="list-style-type: none"><li>- Developed a feature for Strata Developer Studio to communicate to a client wirelessly within a local network</li><li>- Maintain and support the development of Strata Developer Studio</li><li>- Developed a firmware for bare-metal MCUs to communicate serially with Strata Developer</li><li>- Developed a firmware with both BLE GAP peripheral/central roles and GATT server/client roles to search, connect, and exchange data with other BLE devices</li><li>- <u>Leveraged knowledge</u> in C/C++, Qt/QML, CMake, Git, TCP/IP, ARM Cortex-M3 architecture, Memory Pool, debugged using Oscilloscope, Digital Multimeter, and JTAG/SWD debugging interface</li></ul></li><li>• DevOps: Docker   Jenkins   Linux   Windows   SDK   Qt installer<ul style="list-style-type: none"><li>- Reduced dependencies conflict by 50% by eliminating multiple OS build support by utilizing Docker containers to unify the embedded build environment for both MacOS and Windows</li><li>- Created and maintained Linux Ubuntu Docker image with the tools/dependencies to build firmware</li><li>- Automated the build process by using Bash scripts, CMake, and a modified VS Code interface</li><li>- Reduced start of development time by 90% by making an SDK installer with concise documentation</li><li>- Reduced building time of Strata Developer Studio by 70% after the initial build</li><li>- Developed a way to automate firmware submission to support OTA by utilizing Jenkins pipeline</li><li>- Automated Strata Developer Studio release testing utilizing Python and PowerShell scripts</li><li>- <u>Leveraged knowledge</u> in Docker, Jenkins, CMake, Windows WSL, JavaScript, Bash scripting, PowerShell, Linux, MacOS, Windows 7, Windows 10, Qt installer, Inno Installer, Microsoft VS Code</li></ul></li><li>• GUI and Front-end Development: Qt/QML   React   Redux   MongoDB<ul style="list-style-type: none"><li>- Developed QML interface for MQTT protocol along with a GUI for testing</li><li>- Developed a reusable React component to show analytics data in a graph</li><li>- <u>Leveraged Knowledge</u> in Qt/QML, JavaScript, C++, NPM, React, Redux, MongoDB, HTML, CSS</li></ul></li></ul>		

Teaching Assistance	Oregon State University	Sep 2016 – Mar 2017
<ul style="list-style-type: none"><li>- Hold weekly student help sessions and plan out homework with other TAs for computer science II course</li></ul>		

## Education

Corvallis, OR	Oregon State University	Apr 2013 – Sep 2017
<ul style="list-style-type: none"><li>• Bachelor of Science: Electrical and Computer Engineering – GPA: 3.36 out of 4</li></ul>		

## Personal Projects

- **Optical Heartrate Monitor**
  - Developed an Android application to represent and record heartbeats received via Bluetooth
  - Utilized I2C and UART communications protocols, Arduino Uno board, HC-04 Bluetooth module, Maxim Integrated heart-rate sensor, Git, Arduino IDE
- **Calculator for iOS and Android**
  - Developed a simple mobile calculator that runs on iOS and Android
  - Utilized React Native framework, NPM, JavaScript, Git, and VS Code
- **Personal VPN (Virtual Private Network)**
  - Created a personal VPN to access home devices on the go and encrypts traffic on public networks
  - Utilized OpenDNS, Raspberry Pi, Python, TCP/UDP, SSH, Unix CLI

## Skills

**Programming Languages:** C/C++, QML, Python, JavaScript, HTML, CSS, and Shell scripting (Bash)

**Tools:** ARM toolchain, JTAG, RTOS, CMake, Git, Docker, React, React Native, Redux, and NoSQL (MongoB)