

Sean Whalen

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EDUCATION

University of Tennessee, Knoxville

Aug. 2014 – Dec. 2018

M.S. in computer science

Grad. Dec. 2018

B.S. in computer science

Grad. Dec. 2017

- Dean's list *summa cum laude*; 3.96/4.0 undergraduate, 3.93/4.0 graduate GPA; Minor in Cybersecurity; Received the Min Kao departmental award based on merit; Finished a 5-year program one semester early

SKILLS & INTERESTS

- **Programming Languages:** C++, Python, Swift, Java, JavaScript, C#, C, SQL, HTML, CSS, PHP
- **Skills:** understanding requirements; documentation writing; team communication; mentoring; mobile development; learning new APIs and frameworks; developing simple readable code
- **Technologies:** Git, Bitbucket, Jira, Confluence, Android Studio, Xcode, Jupyter, Qt, SwiftUI
- **Interests:** playing drums, sci-fi books and movies, Golden State Warriors, music mixing and production

WORK EXPERIENCE

Teledyne FLIR

Jan. 2019 – Nov. 2021

Software Development Engineer

Oak Ridge, TN

- **RadRemote iOS App:** sole author of a product companion app that uses Bluetooth low energy (BLE) to control radiation detectors remotely, view live data, and download measurements. Designed for iPhone and iPad iOS 13.0+ using SwiftUI and Core Bluetooth
- **Muve C360:** lead a major update effort for a drone mounted toxic gas sensor. Used Qt widgets to quickly create a Windows desktop application for hardware testing. Integrated drone manufacturer SDKs into device main application code. Created a Python API for Boston Dynamics and other third parties to use on robots. Released a beta version of a custom Android app that runs directly on the touchscreen drone controller. Interfaced with contractors and intracompany teams remotely via Zoom
- **identiFINDER R425:** part of a 3-person software development team for FLIR's flagship handheld radionuclide identification device. Managed user data storage and retrieval using Qt and SQLite. Developed a streamlined web interface for customers to monitor their instrument via RNDIS over USB-C. Collaborated with a physics team to engineer a nuclide identification algorithm that met the requirements of various government testing standards
- **Sustaining:** supported legacy products by releasing updates with bug-fixes and feature requests. Fulfilled specific customer needs to update 10-year-old code, winning a USD \$1M contract and maintaining brand trust

University of Tennessee, Knoxville

Jan. 2018 – Aug. 2018

Graduate Teaching Assistant

Knoxville, TN

- Managed 30+ students for two semesters of a sophomore-level computer organization course
 - Taught lab sessions, wrote lab solutions, graded submissions and held office hours
- Coordinated with the course professor to be accessible online, answering student questions within 1-2 hours

OTHER EXPERIENCE

Oak Ridge National Lab

Jan. 2015 – May 2015

Independent Study

Oak Ridge, TN

- Worked with a researcher on large-scale 3d printing edge orientation software for academic course credit
- Set up a C/C++ build environment to use the CGAL library for modeling curvature with Bezier splines