

ERIC SEALS

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Education

University of Kansas

M.S. Computer Science, College of Engineering

Lawrence, KS

Aug 2020 - May 2022

- Cumulative GPA: 3.63/4.00
- Advisor: Heechul Yun

University of Kansas

B.S. Computer Science, College of Engineering

Lawrence, KS

Aug 2017 - May 2020

- Cumulative GPA: 3.72/4.00

Experience

GARMIN

Software Engineer Intern

Olathe, KS

Nov 2020 - May 2021

- Developed new software in C/C++ for the Garmin Tread and other Automotive GPS devices to improve performance and lower latency.
- Rewrote code to fix bugs, polish the UX, and increase general usability and enjoyment of Tread in anticipation for its launch.

KU School of Engineering

Graduate Teaching Assistant

Lawrence, KS

Aug 2020 - Present

- Explained technical topics related to embedded systems and real time applications.
- Designed a final project for the course where students utilize concepts like PWM, LIDAR, UART, and I2C with the DeepPiCar platform to build an autonomous RC car.

KU ITTC

Undergraduate Researcher

Lawrence, KS

Apr 2019 - May 2020

- Contributed to AT&T Labs research in detecting network anomalies for over 250 million 5G customers nationwide:
 - Developed a Python application for centralizing virtual network function data with an Apache Pulsar message bus (like Kafka)
 - Processed data with Python and Apache Flink data stream computation engine (like Hadoop and Spark)
- Designed and built the project Sharp Edges - a research focused project to study the performance gains realized with Mobile Edge Computing (servers on-the-edge vs on-device).

Projects

- **Sharp Edges:** App and Server to study the performance gains with Edge Computing, github.com/sharp-edges-android
 - Built a Client/Server system via an Android application in Kotlin and a server in Java - both implementing an Object Detection Model.
 - Collected results by running and comparing the computationally demanding YOLOv3 Object Detection Model on the Android app vs the Java server vs a powerful cloud server.
- **Quash "Quite a Shell":** Shell for the UNIX Operating System, github.com/Quash
 - Created features like pipes, main and background thread execution, signal handlers, and job status reports with C using POSIX libraries.
- **AudioBud:** Audio Visualizer Chrome Extension, github.com/AudioBud-Chrome-Extension
 - Created an audio visualizer Chrome Extension with JavaScript using Canvas and WebAudio APIs.
 - Implemented digital audio filters, user interactivity via an options menu, and the visualizer's interface.

Skills

Languages: C++, C, Python, Haskell, Latex

Tools & Technologies: Linux, Git, CUDA, OOP, Tmux, Vim, UnrealEngine