ERIC SEALS

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Education

University of Kansas Lawrence, KS
***M.S. Computer Science**, College of Engineering* *Aug 2020 - May 2022*

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

University of Kansas Lawrence, KS
***B.S. Computer Science**, College of Engineering* *Aug 2017 - May 2020*

- Cumulative GPA: 3.72/4.00

Experience

GARMIN Olathe, KS
Software Engineer Intern *Nov 2020 - May 2021*

- Developed new software in C/C++ for the Garmin Tread and other Automotive GPS devices
- Wrote production code to increase general performance, to fix bugs, and to polish the UX on Tread in anticipation for its launch
- Reworked several legacy pages related to satellite positioning which now run on thousands of devices

KU School of Engineering Lawrence, KS
Graduate Teaching Assistant *Aug 2020 - Present*

- Explained technical topics related to embedded systems and real time applications
- Designed the final project for the course having students implement the research project DeepPiCar
- Students utilized concepts like PWM, LIDAR, UART, and I2C with the platform to build an autonomous RC car

KU ITTC Lawrence, KS
Undergraduate Researcher *Apr 2019 - May 2020*

- Designed and built the project Sharp Edges
- Research 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
  - Established communication between the two entities via TCP/IP Sockets
  - Compared the latencies running YOLOv3 Object Detection Model on the Android app vs the Java server vs Google Cloud
- **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.
  - Writen in C for a Linux environment - utilizing the POSIX libraries
- **AudioBud:** Audio Visualizer for Chrome, github.com/AudioBud-Chrome-Extension
  - Created a time and frequency audio visualizer Chrome Extension with JavaScript using Canvas and WebAudio APIs
  - Implemented digital audio filters for modifying audio output (lowpass/highpass/bandstop)
  - Added customization features via an options menu allowing users to customize visuals and filters

Skills

Languages: C++, C, Python, Haskell, Latex **Tools & Technologies**: Linux, Git, CUDA, OOP, Tmux, Vim, UnrealEngine