Kevin Kellar

Computer Science Undergraduate (Graduating Spring 2021)
4438 NW Boxwood Drive, Corvallis OR, 97330
kkevlar | 541-224-6877 | kellar@calpoly.edu | kellar-kevin

Objective

Seeking embedded software engineering roles targeting performance and safety critical applications

Education

California Polytechnic University — *San Luis Obispo, CA*
B.S. in Computer Science — *Fall 2017 - Present*

- Major GPA: **3.9** — Cal Poly Cumulative GPA: **3.9** — Expected graduation **Spring 2021**
- Exceeded in **Algorithms**, **Operating Systems**, **Computer Architecture**, and **Microcontrollers**

Work Experience

Zipline International — *South San Francisco, CA*
Embedded Software Engineering Intern — *March-September 2020*

Apple: Special Projects Group — *Santa Clara, CA*
Software Engineering Intern — *Summer 2019*

Dynamic Robotics Laboratory (II) — *Oregon State University*
Research Experience for Undergraduates (REU) — *Summer 2018*

- Developed **Cassie Trajectory Editor**, a tool to manipulate walking gaits for the bipedal robot Cassie
- Wrote C in Ubuntu Linux to link with C++ libraries such as **MuJoCo Physics Simulator** and **GLFW**
- Self-taught **Matplotlib** in Python for visualizing subtle differences robot trajectories and solver outputs

Dynamic Robotics Laboratory (I) — *Oregon State University*
High School Research Assistant — *Summer 2017*

Skills

C Fluent. Extensive work with **POSIX-style systems programming** as well as **MCU-style** low-level development
Test Built systems/embedded software using **C test-driven development**, mock objects, cmocka, and GTest
MCU Developed **analog acquisition drivers** for Microchip SAME70 and TI MSP423, and drivers for hardware timers
RTOS Implemented application tasks on the preemptive **Micrium µC/OS-II** as well as an internal RTOS for Apple
Bus Wrote MSP423 **I2C, UART and SPI drivers** & work with CAN/CANOpen protocols for communication
Build Experience with **Bazel Build**, GNU Make, SCons and CMake for building and testing projects with many targets
Python Extensive work with **Matplotlib**/Pandas to prove functionality, using batch processing and summary plots
C++ Limited experience with **C++ style OOP**, smart pointers, and data structures, as well as **OpenGL and GTest**
Unix Comfortable with bash scripting programs sed/grep, primarily for **integration testing** systems-level software
SSH Built a **home file server**: experience with ssh server setup, ssh tunneling, and RSA key setup
Android Published **two Android applications** to the **Google Play Store**, using Android Studio, **Java**, and XML
Git Developed **dozens of public and GitHub projects**, including rebase conflict resolution and code reviews
Chinese Early-intermediate level conversational competency in **Mandarin**, experience with many sentence structures

Honors & Awards

Competitions

2019 **2nd Prize**: Roborodentia: Cal Poly's Autonomous Robotics Competition — *Cal Poly, SLO*
2018 **1st Prize**: Roborodentia: Cal Poly's Autonomous Robotics Competition — *Cal Poly, SLO*
2018 **2nd Prize**: Winter SLOHacks: Developed a networked Android application — *Cal Poly, SLO*