Kevin Kellar

Computer Science Undergraduate (Graduating Spring 2021)
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Objective

Six month Co-op in Computer Science or Software Engineering, starting Spring 2019

Education

California Polytechnic University
San Luis Obispo, CA

B.S. in Computer Science
Fall 2017 - Present

- Major GPA: **4.0** — Cal Poly Cumulative GPA: **3.91**
- Completed **Data Structures**, **OO Java**, and Intro To Computer Organization (**Assembly**)
- Finished **Systems Programming** (C programming in Unix environment) in Spring 2018
- Completion of Calculus Series (I - IV), Physics Series (I - III), and Technical Writing for Eningeers

Work Experience

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**
- Developed an **Inverse Kinematics engine** to solve leg joint positions for a user-defined foot target position
- 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

- Completed projects in Arduino, Teensy, Unix, and VR by **independently learning C**
- Assisted in robotics research in the field of path planning, decision making, and teleop controls
- Documented the finished software tools and wrote setup instructions for use within the organization

Electical Engineering and Computer Science Department
Oregon State University

Apprenticeship in Science and Engineering
Summer 2015

- 300 hours of software development and computer skills experience
- Co-Contributor of **ICST research paper** "TSTL: the Template Scripting Testing Language"
- Self-taught basic shell scripting and using Linux-based systems as a development platform

Programming Skills

Git Developed **dozens of GitHub projects**, resolved complex merge conflicts, and used issues / pull requests
Android Published **two Android applications** to the **Google Play Store**, and learned to use XML for interface design
Networking Developed two networked Java applications: a simple chat room and a **multi-user Android app**
Python Wrote a **Self Learning** Tic-Tic-Toe program in Python, which learns as the user plays against it
Data Structs Comfortable writing and using **hashtables and priority queues** in Java, C, and Python
Unix Shell Comfortable scripting with Unix programs such as sed, grep, and conditionals for simple tasks
GCC / Make Devloped over a dozen Unix C projects using **memory management**, **raw pointers**, and **complex Makefiles**
Arduino Written Arduino/Teensy sketches including a simulated xbox controller and **autonomous robot drive code**
SSH Built a **home file server**: experience with ssh server setup, ssh tunneling, and RSA key setup
Security Involvement with Cal Poly WhiteHat, competing in frequent Capture-The-Flag cybersecurity challenges

Honors & Awards

Extracurricular

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*

Academic

2017 **Green & Gold Merit Scholarship**: Contribution to University's academic life — *Cal Poly, SLO*
2013 **Best in Class**: AP Computer Science, Singapore American School — *SAS, SG*