ALEXANDER KRISTOFFERSEN

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EDUCATION

University of California, Berkeley *May 2022*
B.S. in Electrical Engineering & Computer Science *GPA: 3.925*
Relevant Coursework:
Computer Programs, Designing Information Devices and Systems, Data Structures and Algorithms, Multivariable Calculus, Linear Algebra, Electromagnetic Physics, Discrete Mathematics and Probability, Computer Architecture

LEADERSHIP

Redlands Engineering Club August 2015 - June 2018
President *Redlands, CA*

· Led bi-weekly meetings introducing high-school students to a variety of engineering fields, including aerospace, electrical, mechanical, and civil, with monthly projects and lectures.
· Competed and placed 3rd in a county-wide solar-powered canoe competition. I led the electrical design and aerodynamics sub-teams.

PROJECTS

Automated Dorm Room August 2018 - November 2018

· Siri-responsive light switch using wifi-enabled microcontroller, Arduino, and Siri Shortcuts.
· I programmed the Arduino and created the switch mechanism, designed to be unobstructive to normal light-switch usage and without damaging school property.

Fourier Series Educational Visualizer December 2018 - February 2019

· Developed a command-line program and educational demo for the visualization of the Fourier Series, which approximates a function as a sum of sinusoids.
· Uses a linked-list of circles to draw each circle as it rotates about the other, and outputs to approximate function to a continuous graph.

Homemade Electric Unicycle April 2019 - Present

· A self-balancing electric unicycle made with Arduino electronics, a hub-motor, and an old unicycle base.
· Currently building and testing on a miniature model, applying control theory, circuit design, and prototyping in a physical system.

Interactive World-Builder Engine April 2019 - May 2019

· With a partner, designed a seeded randomized 2D dungeon maker with distinctive walls, turning hallways, and torches.
· Added a two-player user controls and a dynamic renderer to create a fun, playable game.

TECHNICAL STRENGTHS

Programming Languages: Java, Python, Scheme (Lisp), SQL, HTML
Physical skills: Arduino, Soldering, Circuit Design, Woodworking, Metalworking, Prototyping, Public Speaking