

ABEL THEODROS

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EDUCATION

University of California, Riverside
B.S. in Computer Science

intended grad: Fall 2021
GPA 3.14/4.0

Related Coursework

Embedded Systems, Data Structures and Algorithms, Operating Systems, Software Construction, Discrete Structures

TECHNICAL SKILLS

Languages	C/C++, Python, Swift, JavaScript
Tools	Vim, XCode, Visual Studio Code, Arduino
Applications	Node.js, Git, gdb, Valgrind, Atmel Studio 7, React

PROJECTS

Safety Safe, Class Project, CS179J - Embedded Systems *Summer 2020*

- Designed and constructing a secure lockbox with two-factor authorization to ensure maximum security
- Working with a group of three engineers to code commands in C++ to detect an RFID key, record previous unlocks, emit alarms for incorrect attempts, and recognize patterns on a touchscreen

R'Shell, Class Project, CS100 - Software Construction *Winter 2020*

- Coded a command line shell in C++ and Vim with a partner
- Stores input and execute programs for associated commands (ls, cd, test) using syscalls (fork, execvp, and waitpid)

Pullup, Hackathon Project, UC Riverside *Fall 2019*

- Developed an iOS app in under fourteen hours using Swift that lists available spots in parking lots and garages in UC Riverside
- Incorporated MapKit and UIKit to display interactive maps to search for and pin available lots.

Pathfinding, Unmanned Aerial Vehicle (UAV), UAS @ UCR *January 2019 - June 2020*

- Created algorithms to detect points of collision, normalize height, and avoid possible obstructions to a fixed winged autonomous aircraft while in the air
- Constructed a complex obstacle class with C++ that classifies if two or more obstacles are in the UAV's path current path and adjusts for it by reassigning the obstacles as a single construct

PROFESSIONAL AFFILIATIONS AND INVOLVEMENT

Abyssinian Student Union (**ASU**), Vice President

August 2018 - Present

Unmanned Aerial Systems (**UAS @ UCR**)

January 2019 - July 2020

Association for Computing Machinery (**ACM @ UCR**)

August 2019 - Present

Cybersecurity @ UCR

August 2019 - Present