

# ABEL THEODROS

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## EDUCATION

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**University of California, Riverside**

B.S. in Computer Science

*intended grad: June 2021*

*GPA 3.1/4.0*

### **Related Coursework**

Data Structures and Algorithms, Discrete Structures, Machine Organization and Assembly Language, Linear Algebra, Multi-variable Calculus.

## TECHNICAL SKILLS

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**Software** Solidworks

**Programming** C++, Python, Swift, HTML

**Applications** XCode, Visual Studio Code, Adobe Premiere Pro, Final Cut Pro

## PROJECTS

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**Unmanned Aerial Vehicle (UAV) Project, IEEE, UC Riverside**

*January 2019 - Present*

- Computer Science Division, Pathfinding
  - Collaborating with three engineers to code C++ programs to track the current location of the UAV, targets possible drop points for the UGV, avoid obstacles while in the air
  - Designed an algorithm that calculates the UAV's current location and compares it with boundaries made up from 50 given longitude and latitude points to determine if the UAV is close to a boundary line or obstacle
- Unmanned Ground Vehicle (UGV) Division, Design and Research
  - Collaborated with four engineers to design and construct an automated unmanned ground vehicle that is to be dropped mid-air from 200 feet in the air via an unmanned aerial vehicle, then drive to a designated location once it reaches the ground
  - Designed and constructed a suspension mechanism to assist the model in landing without sustaining major damage to itself or its payload

**Pullup, Hackathon Project, UC Riverside**

*Fall 2019*

- Used Swift to develop an iOS app that locates parking spots and garages in high-traffic areas and allow users to offer their own private parking spaces for rent
- Demo uses MapKit and UIKit to search for available lots, each with a description of address, average hourly rate, and hours available

## PROFESSIONAL AFFILIATIONS AND INVOLVEMENT

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**Member**, Institute of Electrical and Electronics Engineers (**IEEE**), UCR

*January 2019 - Present*

**Member**, Association for Computing Machinery (**ACM**), UCR

*August 2019 - Present*

**Member**, Cybersecurity at UCR, UCR

*August 2019 - Present*