## Education

* University of California, Los Angeles; Los Angeles, California
  + Physics with Statistics minor, anticipated Bachelor of Sciences, 2021

## Skills

* Coding background- Python, C/C++, Bash, VBA, Mathematica, ROS
* Design- Solidworks 2019, AutoCAD Inventor
* 3D printing and basic manufacturing
* Assembly, Integration, and Test
* Computer vision data integration
* IoT/Radio sensor networks
* Prototyping
* GNURadio
* CubeSat RF Engineering
* 4nec2
* HAM system design

## Major Activity Background and Work Experience

## Bently Nevada

Intern, Systems engineering Team; June 2019-Sept. 2019

* Worked on development of Orbit 60, Torque, and Ranger Pro condition monitoring platforms
* Formulated functional architecture flowdowns and managed requirements with systems engineering team
* Developed VBA tools to grade existing requirements for testability

## UCLA Smart Grid Energy Research Center (SMERC)

Student Researcher; February 2019-Present

* Researched knowledge transfer system for testing of Machine Learning-driven smart insurance adjustment
* Developed prototype electric vehicle charger in compliance with ISO 15118 standards
* Designed delivery drone with ROS and Solidworks tools to support lab objectives
* Used PyTorch and OpenCV to design autonomous driving framework

**UCLA EPSS**

Student Researcher; November 2019- Present

* Developed radiometric temperature sensors with USRP/SDR technology and GNURadio
* Modeled Martian surface to predict RIMFAX data prior to deployment

## Bruin Spacecraft Group

Lead Communications Engineer, RAPID- URSa mission; June 2019-Present

* Led planning and development of space and ground-based S-band cubesat communications system
* Secured data transmissions in conjunction with Command and Data Handling team

Project Manager, Overseer; June 2018- Present

* Assisted development of hardware systems for high altitude ballooning operations using CAD tools, Raspberry Pi, and rapid prototyping technologies
* Taught Solidworks, machining, and systems engineering skills to inexperienced members
* Improved design for over 500% additional payload mass and 200% additional flight duration from previous launches
* Led high-level systems management in accordance with technical specifications
* Met with subsystem leadership to plan future development goals

**Independent Project development**

* Developed LoRa sensor network from OTS components
* Used Raspberry Pi, Arduino, and networking tools to develop IoT network
* Integrated custom power system into design to ensure off-the-grid operability
* Performed cost-benefit analysis to minimize design cost