

## DORIAN CRUTCHER

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### EDUCATION

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**University of California Davis** (graduation date 12/2018)

Bachelors of Science, Mechanical Engineering

### SKILLS

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- SolidWorks, PTC Creo Mathworks MATLAB, Microsoft Office, CNC Programming, Esprit, Scan Studio, Repetier Host, VCarve, NASA Overgrid/Overflow Software, C/C++ Programming, Unity Engine Software
- Sensors, Woodworking, Machining operations (Lathe, Band saw, Milling, etc.), 3D Printing

### EXPERIENCE

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**UC Davis Engineering Student Startup Center (ESSC) - Workshop Coordinator**

**Davis, CA Mar 2016 - Present**

Teach 3D printing, 3D modeling, Arduino programming, and CNC mill programming workshops. Coordinate shifts, of other ESSC employees to teach the workshops, and works with other employees to create new workshops and draft the teaching material. Responsible for managing all equipment by conducting daily maintenance needs and repairs. Analyze students' designs with SolidWorks, and give recommendations on how to effectively optimize or rapid prototype their projects.

**UC Davis Hyperloop Team – Sub-Leader**

**Davis, CA Sept 2017 – Present**

Head designer, and sub-system leader for the Eddy Braking System of The UCD Hyperloop Pod. Perform independent research on eddy current theory and application. Design and improve upon designs using SolidWorks for eddy braking system. Lead a team of engineers from diverse backgrounds, to delegate tasks, create and review designs, and provide an overall direction of the best design for the pod

**UC Davis Solar Car - Member/Suspension Team**

**Davis, CA Aug 2015 – Sept 2017**

Work with other designers by using SolidWorks in developing a working suspension design for the car. Building and manufacturing the vehicle chassis and suspension.

**UC Davis Aeroacoustics/Aerodynamics Research Lab - Member**

**Davis, CA Mar 2017 – Oct 2017**

This research lab focuses on aerodynamics, aeroacoustics, and computational fluid dynamics (CFD) with applications to rotorcraft, wind energy, and turbomachinery. Conduct mathematical and computational research on fluid mechanics, aerodynamics, and aeroacoustics. I utilize NASA's OVERFLOW and OVERGRID software in order to utilize CFD simulations to aid in this research.

**UC Davis Police Department - Aggie Host Security Officer**

**Davis, CA Dec 2014 - Feb 2017**

Maintained campus and student security through area checks, building checks and nightly patrols. Serve as Safe Ride Driver for the UCD Safe Ride Escort Service, work small and large campus events in order to maintain a safe environment for the public

**Cans4Care - C.E.O.**

**Riverside, CA - Jun 2010 - Aug2013**

Founded and managed non-profit organization to provide financial aid to other nonprofits and students financially. Collected and consolidated recyclable items and turned them over to a partnering recycling center for profit. Establish clients, manage employees and delegate work out of multiple locations, insurance and coverage, and hiring. Partnered with Riverside Community Hospital to redirect their recyclable item in-flux to our company, and spent time volunteering for their fundraiser for Community Heart Health Outreach,

### EXTRACURRICULAR

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- **Flight School** - Trained in flying single engine aircraft such as a Cessna 172 and Cessna 152. Knowledge of FAA regulations along with completion of the FAA Written Exam.
- **Homeless Outreach Program** - Assisted First Baptist Church in preparing food for the homeless populations in