

DORIAN CRUTCHER

(951)-241-9683 | doriancrutcher@gmail.com | Website: doriancrutcher.me

EDUCATION

University of California, Davis Davis, CA
(graduation date 12/2018)

Bachelors of Science in Mechanical Engineering, expected 12/2018

- Team won best in class for final MATLAB project

SKILLS

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

EXPERIENCE

UC Davis Engineering Student Startup Center (ESSC) -Davis, CA

Workshop Coordinator/Manager, Davis, CA Mar 2016 - Present

- Oversee the creation of new workshops by working with other student managers to draft teaching materials
- Teach 3D printing, 3D modeling, Arduino programming, and CNC mill programming workshops
- Teach 3D printing, 3D modeling, Arduino programming, and CNC mill programming workshops. Coordinate shifts of other ESSC employees to teach the workshops and workshop schedule for a team of six, 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 other students' designs with SolidWorks, and giving them recommendations on how to effectively optimize and/or rapidly prototype their projects.

UC Davis Hyperloop Team Davis, CA

Head Designer & Sub-System Leader – Eddy Braking System, Sept 2017 - Present
Sub Leader
Davis, CA Sept 2017 - Present

- Lead a team of engineers from diverse backgrounds, to by delegating tasks, creating and reviewing designs, and providing an overall direction of the best design strategy for the pod
- Head designer, and sub-system leader for the Eddy Braking System of The UCD Hyperloop Pod. Research, Perform independent research on eddy current theory and application, current eddy theory and applications independently.
- 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 Davis, CA

Member/Suspension Team, Aug 2015 – Sept 2017
Davis, CA Aug 2015 – Sept 2017

- Work with other designers. Collaborated with peer designers by using SolidWorks in to develop ing a working suspension design for the car
- Assisted in r. Building and manufacturing manufacturing the vehicle chassis and suspension-

UC Davis Aeroacoustics/Aerodynamics Research Lab -Member Davis, CA

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Research Assistant, Mar 2017 – Oct 2017

- Chosen for position based on excellence in Fluids course
- ~~This research lab focuses on aerodynamics, aeroacoustics, and computational fluid dynamics (CFD) with applications to rotorcraft, wind energy, and turbomachinery.~~ Conducted mathematical and computational research on fluid mechanics, aerodynamics, and aeroacoustics with in applications for rotorcraft, wind energy and turbomachinery
- ~~I utilized~~Utilized NASA's OVERFLOW and OVERGRID software in order to ~~utilize create~~ CFD simulations ~~to aid in this research.~~

UC Davis Police Department

Davis, CA

Aggie Host Security Officer, Davis, CA Dec 2014 - Feb 2017

- Maintained campus and student security through area checks, building checks, ~~and~~ nightly patrols, ~~and event details~~
- Served 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

Riverside, CA

C.E.O. Founder & CEO, Riverside, CA Jun 2010 – Aug 2013

- 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.
- Established ~~clients, clients, hired and managed~~ employees, ~~and delegated~~ work ~~out of multiple locations, and coordinated locations and insurance and coverage, and hiring.~~
- Partnered with Riverside Community Hospital to redirect their recyclable items ~~in-flux to our company, and spent time volunteering for their fundraiser for Community Heart Health Outreach,~~

EXTRACURRICULAR

- Flight School Graduate
- Volunteer with Homeless Outreach Program, 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

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