DORIAN CRUTCHER

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EDUCATION

University of California, Davis   **Davis, CA**

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 Manager, 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
- Coordinate shifts and workshop schedule for a team of six
- Analyze other students' designs and giving them recommendations on how to optimize and rapidly prototype

UC Davis Hyperloop Team   **Davis, CA**

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

- Lead a team of engineers from diverse backgrounds, by delegating tasks, creating and reviewing designs, and providing an overall direction of the best design strategy for the pod
- Research current eddy theory and applications independently
- Design and improve upon designs using SolidWorks for eddy braking system

UC Davis Solar Car   **Davis, CA**

Member/Suspension Team, Aug 2015 – Sept 2017

- Collaborated with peer designers using SolidWorks to develop a working suspension design for the car
- Assisted in manufacturing the vehicle chassis and suspension

UC Davis Aeroacoustics/Aerodynamics Research Lab   Member
Davis, CA

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~~