Adrian Francisco Duran Ornelas

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Education

University of California, Irvine (GPA 3.74) **Expected Graduation: June 2023**

Henry Samueli School of Engineering – *Bachelors of Science in Aerospace Engineering*

- **Physical Sciences and Engineering Special Merit Award** – Presented on research done on control systems of high speed hyperloop vehicles at CAMP Statewide Engineering Symposium
- **HSF Scholar** – Merit-based designation for academic achievement, personal strengths, and leadership

Relevant Coursework: Material Sciences, MATLAB, Mechanics of Structures, Mathematica

Engineering Experience

UCI HyperXite – *A student led research and design team that participates in international Hyperloop competitions such as European Hyperloop week, building prototypes of the Hyperloop pod concept.*

- **Braking Engineer** **June 2021 – Present**
  - Design linear friction brakes that are pneumatically actuated to decelerate the hyperloop pod to a halt with a stopping deceleration of roughly 25 m/s^2
- **Embedded Systems Engineer** **July 2020 – June 2021**
  - Integrated electronic systems of hyperloop pod with the mechanical systems of the pod to ensure consistent and safe operation of the pod when in motion

ENGI Tank Sea Life Revival Project – *A 10-week long engineering design competition during which SLRP designed an autonomous ocean water filtering buoy to address the growing concern of water pollution in California.*

- **Team Lead** **June 2021 – August 2021**
  - Managed a team of 6 student engineers in the design of a lightweight buoy to be deployed along the California coastline to filter microplastics from the ocean
  - Design and assemble on board electronics systems contained in a waterproof canister

Projects

- **Offline Virtual Assistant** **June 2021 – July 2021**
  - Designed and trained an offline voice recognition algorithm and then paired it with a natural language processor completely self-authored in python in order to interpret and act on vocal commands triggered by a hot word
- **Fitness & Health Tracker** **January 2021 – March 2021**
  - Completed a fitness and health tracker capable of accurately tracking steps, height, and goals for the end user accurate to 95% of real step count

Leadership and Extracurriculars

American Society of Mechanical Engineers @ UCI

- **Project Director** **October 2021 – Present**
  - Manage and advise multiple engineering projects by holding biweekly meetings in order to discuss their progress, goals, feasibility, and funding
  - Organize project competitions, and technical workshops to enrich club member's engineering skills

Biomedical Engineering Society @ UCI

- **Make-a-Thon Competitor** **September 2021 – Present**
  - Design an open-source gait monitoring solution for patients with neurodegenerative diseases by integrating data from wearable accelerometer modules to reinforce existing physical therapies.

Skills

Management Skills

- Leadership, Organization, Communication, Microsoft Office, G Suite, Technical Writing, Public Speaking

Technical Skills

- Proficient in: SOLIDWORKS, ANSYS, MATLAB, Python, GitHub, Linux, Embedded Systems, Blender
- Exposure to: C++, C, CAN Databases, Virtual Reality Development, Pneumatic Assemblies and Valves