Tuffy Titan

(###) ### - #### | studentmail@fullerton.edu
City, State Zip Code
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EDUCATION

California State University, Fullerton
Bachelor of Science, Mechanical Engineering — Expected Graduation: May 2024
G.P.A. - 3.56, Dean's List — Spring 2020 – Fall 2023

RELATED COURSES

Fluid Mechanics	Strengths and Materials Lab	Robotics
Mechanical Design	Fluids and Heat Lab	Thermal Systems Design

INTERNSHIP EXPERIENCE

Faraday Future — Gardena, CA
Powertrain Intern, Power Production Department — June 2023 – August 2023

- Maintained Hardware-in-loop (HIL) plant model for powertrain component level testing
- Conducted hardware-in-loop testing on the Powertrain Controller ECU for regression testing and validating new features
- Automated manual test cases using Tracetronic ECU-TEST to increase testing frequency and reduce human error

PROJECTS

Formula SAE Cooling System Design *(Senior Design Project)* — March 2023 – Present

- Research, design and testing a cooling system for a formula style racecar.
- Creation of re-simulation model to use data from previous competitions to correctly size radiator
- Integration of custom radiator fan using high performance brushless motor

Society of Automotive Engineers *(Formula SAE)*
Powertrain Lead — June 2021 – June 2022

- Lead a team of six engineering students to design subsystems within the powertrain system
- Validated theoretical calculations through physical testing at the subsystem and vehicle level
- Maintained the team's professional network by interfacing with a variety of companies seeking potential sponsorships, services or advice

Cooling Subsystem Lead — April 2020 – June 2021

- Designed and manufactured the cooling system for a formula SAE car
- Simulated external airflow around the vehicle to design radiator ducting using Ansys Fluent
- Coordinated with aerodynamics lead to minimize negative aerodynamic effect of the cooling system
- Created Simulink model of the cooling system using the principles of heat transfer and data from physical testing to determine required size of the radiator

SKILLS

- **Solid Modeling:** SolidWorks, AutoCAD
- **Simulation and Testing:** MATLAB, Simulink, Ansys Fluent, Tracetronic ECU-TEST
- **Manufacturing:** 3D Printing, CNC Machining, Master CAM
- **Other:** Python, C/C++, Microsoft Office Suite

LEADERSHIP SKILLS

Society of Automotive Engineers, President — Fall 2022 – Fall 2023
Society of Mexican American Engineers and Scientists, Vice President — Fall 2021 – Spring 2022