EDWARD PONCE

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SUMMARY

Motivated 3rd year Mechanical Engineering student with a passion in EV design looking for opportunities to progress in the emerging field of Electric Vehicle technologies. Enthusiastic to apply knowledge in the workplace and be involved with projects key to company progress and emergence. Strong ability in leading a task to completion with attention to detail. Team worker and effective communicator in the workplace where terminology and problem communication are most valued.

SKILLS & ABILITIES

Design and Simulation Programs	Programming Languages	Other Programs
➢ SolidWorks (4 years – CSWA)	➢ MATLAB	➢ Microsoft Office Excel
➢ Solidworks Simulation	➢ Python	➢ Microsoft Office Suite
➢ Ansys Simulation	➢ C++	➢ Solidworks Visualize
➢ COMSOL Multiphysics Simulation	➢ VBA	➢ Blender

EXPERIENCE

BATTERY TEAM LEAD, UNIVERSITY OF CALIFORNIA, RIVERSIDE -- HIGHLANDER RACING   2018– PRESENT

Responsibilities
o   Lead a team of 7 undergraduate engineers to design, analyze, and manufacture a performance battery pack by balancing power and energy.
o   Verify Safety of Designs and present FSAE Safety Documentation for all structural and electronic designs
o   Design Battery infrastructure for FSAE vehicle

Achievements
o   Designed Battery Mounting System that increased factor of safety by 200% and reduced manufacturing time by 50%
o   Designed an FDM 3D printable junction box for high voltage and low voltage routing
o   Trained new Battery Members to emphasize safety when working with high voltage electronics
o   Taken data on cell tab fusing with DAQ technology for design verification
o   Current Tasks
   ▪   Implementing cell tab fusing, Manufacturing Battery Mounting, Begin design on future battery system

DRIVETRAIN DESIGN MEMBER, UNIVERSITY OF CALIFORNIA, RIVERSIDE -- HIGHLANDER RACING   2017– 2018

Responsibilities
o   **Design** a Wheel Hub as part an in-wheel drivetrain system for a 4-motor electric vehicle
o   **Simulate** load conditions on Wheel Hub to verify design and utilize programmatic optimization to achieve best design(Solidworks Simulation)

Achievements
o   Designed a Wheel Hub that could withstand the entire load of vehicle under racing conditions.
▪   Individually able to withstand entire weight of vehicle, under corning torque conditions with a **Factor of Safety of 3.**

EDUCATION

UNIVERSITY OF CALIFORNIA – RIVERSIDE – B.S. MECHANICAL ENGINEERING   2017-PRESENT

Major Coursework Completed: Thermodynamics, Mechanics of Materials, Fluids, Modeling and Analysis, Linear Systems

Certifications
•   Solidworks Associate Certification