Daniel Deng

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EDUCATION

University of California, Irvine **Irvine, California**
B.S. Mechanical Engineering Graduation Date: June 2027 | GPA: 3.98

EXPERIENCE

SpaceX **Cape Canaveral, Florida**
Starship Launch Hardware Engineering Intern *June 2025 – September 2025*

- Owned design and build of ground support equipment for Starship launch pad at LC-39A resulting in successful field integration at launch pad
- Designed structural, piping, and conduit systems in Siemens NX; performed weld-sizing analyses to validate structural integrity
- Led PDR, CDR, and manufacturing readiness reviews for launch pad systems
- Sourced materials, created build plans, and released work orders for manufacturing and installation

UCI Formula SAE Team **Irvine, California**
Chief Engineer *May 2025 – Present*

- Directing the engineering efforts of UCI's FSAE team across 8 subteams
- Created a centralized parts-tracking system, improving transparency and resource management

Chassis Lead Engineer *May 2024 – May 2025*

- Led 5-member team in the design, manufacture, and validation of a lightweight tube frame chassis, focusing on systems integration with other components
- Developed new generation chassis with a 20% weight reduction over previous year while achieving torsional rigidity targets validated by FEA
- Managed design of aluminum frame chassis fixture to ensure high tolerancing during assembly and welding

Chassis Design Engineer *September 2023 – May 2024*

- Redesigned the tube frame structure in SolidWorks
- Validated chassis rigidity through running torsional tests in Ansys FEA which resulted in a 13% increase in torsional rigidity and a 7.4% decrease in yaw inertia over previous chassis
- Executed chassis manufacturing utilizing MIG welding, laser cutting, and 3D printing
- Created documentation throughout the entire design-validate-manufacture process

NASA Jet Propulsion Laboratory **Pasadena, California**
Research Intern *June 2022 – August 2022*

- Conducted research on lunar habitation challenges, specifically tackling the accumulation of lunar regolith.
- Developed a solution utilizing electrostatic repulsion to mitigate lunar dust accumulation on spacesuits and habitat surfaces, presented to JPL researchers for implementation consideration

Research Intern *June 2021 – August 2021*

- Worked with researchers to create an updated version of the Arecibo message
- Introduced a new binary representation of numbers, mathematical operators, and chemical elements as part of the newly created message

TECHNICAL SKILLS

Software: Siemens NX, SolidWorks (CSWP certified), Ansys, ERP systems, Python, C++
Hardware: FDM 3D printing, MIG & TIG welding, manual mills & lathes, soldering