RENO WARNER | PORTFOLIO | 702-406-2484

RENO WARNER

MULTIDISCIPLINARY MECHANICAL ENGINEER

ENTHUSIASTIC.
INNOVATIVE.
ADAPTABLE.

Multidisciplinary Mechanical Engineer with strong experience in manufacturing, embedded systems, controls, and FEA. Chief Engineer of a student-led CubeSat mission, responsible for the initial systems architecture along with full-stack development of onboard electronics and flight software. Passionate and quick to learn, with a proven record of adapting to cross-domain engineering challenges.

Education

University of Arkansas

Master of Science in Engineering | Emphasis Aerospace | Expected May 2026

- Emphasis
  - Aerospace Propulsion
  - Astronautics
- Electives
  - Thermal Systems Analysis and Design

Utah Tech University

Bachelor of Science in Mechanical Engineering | Emphasis Controls | May 2025

- Technical Electives
  - Autopilot
  - Modern Controls
  - Finite Element Analysis
- Completed NCEES FE Exam

Experience

Manufacturing Engineering Intern — Aug 2022 - May 2024

Utah Tech University

- Collaborated with academic faculty and students to transition designs from CAD to physical functional prototypes.
- Designed custom solutions to industrial machines, reducing downtime and improving machine reliability.

Harbinger CubeSat Chief Engineer — Aug 2024 - May 2025

- Spearheaded the development of an ultra-low-cost CubeSat(<15k) with a rapid design-to-deployment cycle(<1 year).
- Managed a multidisciplinary team(16 people) to design and review custom satellite subsystems including power, payload, controls, and communications.
- Led the design and optimization of an optical train for a next-generation cubesat

Projects

Stainless Steel Stove

- Designed and built a lightweight stainless steel stove with integrated gas valve using CNC-fabricated parts.
- Created a custom laser-cut rubber gasket as a low-cost sealed valve solution.

Arcade Shooting Gallery

- Served as the lead engineer in the development of an interactive shooting gallery.
- Designed pneumatic firing mechanism with hinge-action, integrating a safety lockout using infared photodiode-based detection.
- Designed a networked microcontroller system.

Turbo Regatta

- Led a team to develop a propulsion system for a 2 person boat.
- Designed and Modeled a 0.75 kW Brushless DC motor under strict budget constraints.
- Additionally, analytically optimized a propeller for efficient thrust generation.

Expertise

Manufacturing

- LEAN
- CAM
  - Fusion 360
- CNC Machining
  - 4th-Axis
- Laser/Water Cutting

Engineering

- CAD
  - Onshape
  - SolidWorks
  - Autodesk
- FEA
  - ANSYS
- Spreadsheets(Excel)

Programming

- MATLAB/Python
  - Dynamic Simulations
  - Optimization
- Rust/C/C++
  - Performance
- Embedded(STM32)

Attributes

- Leader
- Passionate
- Self-Learner
- Enthusiastic
- Adaptable
- Collaborative