

David Krupp

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SUMMARY STATEMENT

Mechanical engineer with experience designing/fabricating mechanical and electrical systems for satellites, state-of-the-art novel research, and academic writing. Skilled in CAD, systems integration, and test planning with a focus on turning complex ideas into functional, flight-ready hardware. Comfortable working across disciplines where design, analysis, and hardware meet.

EDUCATION

Master of Science in Engineering - Emphasis in Thermodynamic Systems, May 2026
University of Georgia, Athens, GA, GPA 3.42

Bachelor of Science in Mechanical Engineering, May 2025
University of Georgia, Athens, GA, GPA 3.5

EXPERIENCE

Mission Specialist, May 2025 - Present
University of Georgia, Athens, GA
Supervisor: Sydney Whilden (sydney.whilden25@uga.edu)

- Operated as the primary contact between the Small Satellite Research Lab, Center for Geospatial Research, and the Regenerative Bioscience Center in designing NeuroCube, our NASA-backed space biology experiment.
- Designed and 3D modeled the main bodies of the experimental platform and the 6U CubeSat platform that will carry and control the experiment in Low Earth Orbit. Validated design through FEA and MATLAB/Simulink studies.
- Drafted mission Concept of Operations (CONOPS), and supporting hardware/subsystems including: ADCS parameters, EPS power cycling requirements, and Comms uplink/downlink schedule based on mission constraints.

Fleet Analytics Intern, May 2024 - August 2024
GE Vernova, Atlanta, GA
Supervisor: Lucy Gao (lucy.gao@ge.com)

- Created Python programming responsible for GE gas-powered turbines' performance and safe operation.
- Updated outdated code/software that triggers alarms in response to unusual combustion chamber behaviors, i.e., significant pressure, temperature, or thrust fluctuations.
- Developed code that monitors oscillating vibrations within turbines and flags the unit for a shutdown if such vibrations exceed value and persistence tolerances.

Innovation, Engineering, and Flight Co-Op, January 2022 - May 2023
Gulfstream Aerospace, Savannah, GA
Supervisor: Robert Taylor (robert.taylor@gulfstream.com)

- Operated as a Flight Test Engineer, designing mechanical components that assist in the production and test of experimental aircraft, and overseeing fabrication through additive manufacturing and in-house machine shop.
- Heavily experienced with Catia v5 and MATLAB for solutions involving tubing and sheet metal design.
- Designed the official Federal Aviation Administration flyover noise testing data collection hardware and setup.

CERTIFICATIONS/ACHIEVEMENTS

Best Research Award - Optimizing Neural Radiance Fields for Solar Informed Volume Rendering, April 2025
CURO Symposium, University of Georgia

Engineer-in-Training (EIT) Certification - Earned by passing the Fundamentals of Engineering (FE) Exam, State of Georgia, Jan 2025

Eagle Scout – Achieved the highest rank in all of Scouting, August 2017