

KAITLYN KAHRIM

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Senior Mechanical Engineering student and ASME chapter president with hands-on aerospace manufacturing experience.

EDUCATION

Bachelor of Science in Mechanical Engineering

Expected May 2027

Florida Atlantic University | GPA: 3.693 / 4.0 | Cum Laude (anticipated)

Tau Beta Pi, Engineering Honor Society - inducted Spring 2026

Relevant Courses: Thermodynamics, Heat Transfer, Strength of Materials, Machine Design, Manufacturing Methods.

EXPERIENCE

Aerospace Technologies Group, Boca Raton, FL

Manufacturing Engineering Intern

Nov 2025 – Present

- Designed and implemented a fixture-based handheld-printer marking system replacing a failing manual stamping process: cut marking time from a full production day to ~20 minutes, eliminated misprints, and scaled to the motor cell, a production line, and a second manufacturing facility. Led it from equipment research through SolidWorks design, prototyping, and validation.
- Designed and 3D-printed ~50 holders now in daily use to secure finished units valued at several thousand dollars each during burn-in cycling, 25 units at a time, supporting weekly shipset deliveries; eliminated a fall and damage hazard.
- Developed a rework process for a recurring cosmetic defect, saving 250+ units from scrap; wrote the controlled procedure and trained production technicians.
- Designed and 3D-printed an airgun holder installed at ~30 benches across 5 production lines, saving ~\$1,700 versus the \$60 commercial part.
- Analyzed a month of scrap transaction data to trace high fabric scrap to paint/FOD contamination caught too late in the process; proposed a post-paint inspection checkpoint, standard accept/reject criteria, and a "stage detected" tracking field.
- Own manufacturing engineering for a new product introduction, including drawing-package reviews for manufacturability.
- Authored 7 controlled manufacturing procedures for tooling, fixtures, packaging, and cosmetic-defect processing in a regulated aerospace environment; revising the defective-part procedure to standardize scrap and rejected-part tracking.

DDEC, Delray Beach, FL | Traffic Engineer Intern (AutoCAD project documentation)

April 2023 – Oct 2023

PROJECTS

NASA Human Exploration Rover Challenge (HERC), Mechanical Lead, Senior Design

Aug 2026 – Present

- Lead mechanical design for a 7-person senior design team selected to compete in NASA's 2027 Human Exploration Rover Challenge; own CAD, design reviews, and project deliverables.
- Coordinate design milestones across the team and faculty, including the Fall 2026 preliminary design review; support sponsorship outreach and budget planning.

LED Street Light Heat Sink Thermal Analysis

Spring 2026

- Independently modeled and simulated 3 passive heat sink geometries (rectangular, triangular, pin fin) in SolidWorks/ANSYS for a 50W COB LED streetlight dissipating 35W, targeting LED temperatures below the 85°C limit under natural convection alone.
- Validated all 3 ANSYS models against fin-theory hand calculations (1.3–3.6% error); recommended rectangular fins, which achieved a 48.7°C max temperature (36°C safety margin) through 29% more fin surface area and offered the lowest-cost manufacturing via aluminum extrusion.

LEADERSHIP EXPERIENCE & ORGANIZATIONS

President, Vice President, Secretary | American Society of Mechanical Engineers (ASME)

Fall 2025 – Present

- As President, run general body meetings and coordinate the officer team for a 70-member chapter, selecting speakers and managing conference attendance logistics; leading 4 GBMs and 3 additional events this semester.
- As VP, managed scheduling, member communications, and attendance tracking across officer roles; as Secretary, tracked points and attendance for ~50 members and coordinated 7-8 chapter-wide emails and payment collection.

Secretary, Marketer | Society of Women Engineers (SWE)

Jan 2025 – Present

- On executive team that revived SWE at FAU from an inactive chapter to ~30-40 attendees at general body meetings at peak; developed and executed marketing and outreach materials across digital platforms.

Mentor | First-Year Connections Mentorship Program; International Friends Program

Aug 2023 – May 2026

- Mentored first-year students for three consecutive academic years; paired one-on-one with an international student through their cultural and academic transition to FAU (Fall 2024).

TECHNICAL SKILLS

Software: SOLIDWORKS, ANSYS, MATLAB, LabVIEW, IQMS (ERP), Microsoft Office, Google Workspace.

Manufacturing: Fixture design and fabrication, 3D printing, controlled procedure authoring, root cause analysis; C (Arduino).

Certifications: IPC J-STD-001 Certified IPC Specialist (Soldering).