

Findley Lacey

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EDUCATION

Fairfield University, Fairfield, CT

M.S. Mechanical Engineering (GPA 3.88)

Expected May 2027

Thesis: Schlieren imaging in a hypersonic Ludwig tube to validate shock-angle models for hollow cylinder flares

B.S. Mechanical Engineering, Aerospace Concentration

May 2026

Minors: Physics, Mathematics | Sigma Pi Sigma Physics Honor Society

PROFESSIONAL EXPERIENCE

Student Design Engineer and Hypersonics Researcher

September 2024 – Present

Fairfield University, Department of Engineering

Fairfield, CT

- Responsible for CAD design, simulation and construction of the vacuum test chamber and pressurized driver tube.
- Developed new manufacturing method for pressure burst diaphragms required for consistent tunnel operation.
- Researched fabrication methods for low-cost, high-sensitivity sensor/transducer for testing in hypersonic wind tunnel.

New Product Development Intern

May – August 2026

Zurn Elkay Water Solutions

Downers Grove, IL

- Defined 150+ UL 399 requirements to expand Zurn Elkay's flagship filtered fountains and bottle fillers into outdoor installations; compiled a Technical Requirements Document used to scope the project and completed a DFMEA and tolerance stack-up analysis to prioritize design changes for outdoor use.
- Designed and built a low-cost rain-test rig per UL 399 Section 68 and a reusable test stand, enabling on-site pre-compliance testing; validated through successful dry runs and released drawings, BOMs, and assembly instructions.

Mechanical Engineering Intern

May – August 2025

Jet Aviation, A General Dynamics Company

Basel, Switzerland

- Designed components for widebody VIP completions in accordance with EASA part 21, ensuring compliance and production readiness. This included 3D design and 5-Axis CNC programming using Siemens NX and application of Design for Manufacturing (DFM) and Design for Installation principles to streamline fabrication and installation.
- Updated DFM guidelines to standardize manufacturing and design processes, ensuring alignment on cross-team communication, reducing new hire training time and duplicated work.
- Created documentation to inform departments of engineering process changes aimed at increasing part reusability.

Engineering Intern

June – August 2024

Abbott Nutrition, a division of Abbott Laboratories

Abbott Park, IL

- Designed and implemented a spray bar sanitation system for a high-speed bottle conveyor, cutting microbial levels and reducing sanitation downtime by up to 30%; planned the project using DMAIC, 5-Whys, and fishbone analysis.
- Evaluated Spill Prevention, Control, and Countermeasure (SPCC) plans at five manufacturing facilities against EPA requirements; created a master document categorizing spill containment capacity.
- Supported the implementation of a new granular sanitation chemical in a manufacturing facility by following and completing the New Commodity Process. Completed all documentation requirements using the chemical Safety Data Sheets and facilitated a Failure Mode Effects and Analysis (FMEA) of the current and proposed processes.
- Facilitated a PFMEA of current vs. proposed processes to support implementation of a new granular sanitation chemical; completed the New Commodity Process, including SDS-based documentation.
- Led a redline review of HVAC, pressure vessel, and tank standards against EHEDG hygienic design guidelines.

LEADERSHIP AND INVOLVEMENT

President, American Society of Mechanical Engineers (ASME) Student Chapter • 2024–2025

Student Advisory Council, School of Engineering (faculty-elected) • 2024–2026

President, Men's Club Volleyball • 2024–26

TECHNICAL SKILLS

SolidWorks, Siemens NX (CAD/CAM), AutoCAD, ANSYS Fluent (CFD), ANSYS Mechanical (FEA), MATLAB, FDM 3D printing, Resin 3D Printing, DFM, DMFEA, PFMEA, tolerance stack-up, Python, LaTeX, Microsoft Office