

Dylan Thompson

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EDUCATION

University of Central Florida
B.S. Mechanical Engineering

GPA 3.6

Expected Graduation: 2029

EXPERIENCE

GE Vernova

May 2026- Aug 2026

Supply Chain Manufacturing Intern

- Automated Power Query workflows consolidating 7 Excel data sources into a single live dashboard integrated with IBM Maximo, reducing PM task prioritization time by 40% across 300+ monthly work orders.
- Redesigned Maximo work-order interfaces by conducting structured interviews with 14 production-floor technicians, translating feedback into UI improvements adopted across 3 work centers and reducing data entry errors by 25%.
- Collaborated with lead engineers on CAD models and technical drawings to resolve 4 recurring floor-level production issues, contributing to a 20% reduction in unplanned equipment downtime.

Aero Services Commercial Operations

- Engineered an internal HTML training platform consolidating 12+ onboarding modules and SOPs for commercial operations, reducing new hire ramp-up time by an estimated 30% and serving 10+ incoming hires and interns annually.
- Delivered a technical briefing on capacitors and instrument transformers to 100+ production-floor staff, bridging the knowledge gap between engineering and commercial operations teams across the facility.

Interfacial Transport Lab | Undergraduate Researcher |

Jun 2025 – Present

- Investigated thermal performance of pulsating heat pipes and two-phase passive cooling devices, analyzing heat transfer efficiency and predictability across multiple flow conditions.
- Conducted CFD analysis of a single-loop aluminum heat pipe in ANSYS Fluent, simulating internal fluid dynamics and thermal behavior to validate experimental design assumptions.
- Designed SolidWorks exploded-view assemblies and fabricated aluminum test prototypes for experimental validation.
- Co-authored a published undergraduate research abstract on two-phase passive cooling systems, presented at the university level.

American Society of Mechanical Engineers 2025–26 Student Design Competition | Project Lead |

Sept 2025 – Present

- Led a 60+ member interdisciplinary team in designing and building an autonomous waste-collection robot for the 2025–26 ASME Student Design Competition, driving the project from concept through full fabrication.
- Directed CAD modeling, rapid prototyping, and iterative physical testing to optimize robot navigation, sorting accuracy, and material handling across inclines and rough terrain.
- Managed all design validation deliverables including fabrication documentation and demonstration videos ensuring full compliance with competition scoring criteria.

Baja SAE | Machinist |

Aug 2025 – Present

- Machined precision drivetrain and chassis components on a CNC lathe (ProtoTRAK) and manual mill to tolerances of ± 0.005 " for an off-road competition vehicle competing under SAE standards.
- Prototyped, inspected, and documented 10+ custom components to meet SAE standards across endurance, acceleration, and maneuverability events, ensuring parts passed quality checks before vehicle assembly.

PERSONAL PROJECTS

Liquid Cooling Loop | Thermal Systems, ANSYS CFD

(In Progress) 2026 – Present

- Designing and 3D-printing a full liquid cooling loop from scratch, including a custom reservoir and water blocks
- Running ANSYS CFD simulations to compare water block designs and optimize thermal performance.

4-Axis Robotic Arm | SolidWorks, 3D Printing, Embedded Control

2025

- Designed and fabricated a 4-axis robotic arm in SolidWorks with fully custom 3D-printed components.
- Engineered real-time mirrored control using a smaller input arm and potentiometers feeding position data to servo drivers, with no pre-programmed motion.

SKILLS AND CERTIFICATIONS

- Certifications:** Lean Six Sigma Yellow Belt, Certified SolidWorks Professional (CSWP), MOS Certified (Excel, PowerPoint, Word)
- Programming & Electronics:** Python, Arduino (C++), Servo Systems, Feedback Control Software: ANSYS (CFD), ProtoTRAK (CNC).
- Interpersonal:** Communication, Leadership, Problem-Solving, Project Management, Adaptability.

ACTIVITIES AND HONORS

- Co-Founder, ASXW Clothing: designed and launched an apparel brand generating \$100K+ in sales.
- DECA: state-level competitor and chapter Senator (business strategy and leadership).