Garrett Wallace

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EDUCATION

University of Florida, Herbert Wertheim College of Engineering — *Gainesville, FL*

B.S. Mechanical Engineering, Minor in Electrical Engineering — *Aug 2024 - May 2028*

Certificates in Engineering Project Management & Engineering Innovation — GPA: 3.43 / 4.00

PROFESSIONAL EXPERIENCE

Theissen Training Systems (TTS) — *Gainesville, FL*

Manufacturing & Assembly Intern — *August 2026 - Current*

- Contributed to procurement cost-reduction efforts through LEAP, a company effort generating **$500,000+** in 2026 **savings**
- Lead development of a modular manufacturing table to improve assembly workflow for production of **25+ target systems daily**.
- Program control boards using **Microchip MPLAB IPE**; conduct testing and troubleshoot hardware & firmware failures.
- Assemble **100+** stationary infantry target **(SIT) systems weekly**, supporting SAT, MIT, and MAT production.

Evren Technologies — *Gainesville, FL*

Mechanical Design Intern — *April 2026 - July 2026*

- Designed and refined **25+** medical-device components in Onshape, applying DFM principles and tolerance analysis.
- Investigated wire damage during latex-vacuum sealing tests; revised earpiece mold CAD to incorporate pinholes and altered structure to address damage to wiring embedded in silicon

TRISO-X — *Oak Ridge, TN*

Process & Design Engineering Intern — *May 2025 - August 2025*

- Developed material-handling system designs quoted at **$10,000+** per machine for Kernel Converter & High-Temperature Carbonization Furnace (HTCF), incorporating fabrication and equipment-layout constraints
- Reviewed **15+ engineering documents** including P&IDs, assemblies, and drawings for qualification, verification, and configuration management; presented identified issues to lead engineers during **weekly design reviews**.

ENGINEERING LEADERSHIP

UF Generational Relief in Prosthetics | *Project Manager, Additive Manufacturing* — *April 2026 - Current*

- Oversee **8 3D printers** serving **70+ assistive-device projects**, coordinating quality reviews & production approval.
- Reduced print times by approximately **15%** through DFM reviews with team captains and refinements to CAD designs.
- Improved print-submission & training procedures through individual reviews, addressing shear-related failures & missing fillets.

UF Generational Relief in Prosthetics | *Research Division Captain* — *August 2026 - Current*

- Lead **8+ students** developing a **LiDAR-based** obstacle-awareness system with chest-mounted feedback for blind users.
- Design mechanical CAD and electrical systems for the prototype, coordinating team component selection and integration.

UF Surf Team | *Operations & Logistics Coordinator* — *April 2026 - Current*

- Developed Excel system integrating inventory, membership, & budget tracking for **200+ assets** and a **$15,000+** annual budget
- Coordinate transportation, equipment, and logistics for **15+ events per semester** with attendance ranging from **40 to 1,000+**

FIRST Robotics | *Mechanical Systems Technician* — *June 2021 - October 2023*

- Designed and fabricated robot **drivetrain & manipulator** subsystems, qualifying for FIRST **World championship annually**.
- Mentored **20+ students** across **7+ FRC teams** in fabrication and mechanical troubleshooting during competition preparation.

PROJECTS

Rotary-Drill Cooling Optimizations | *Sandvik Design Challenge* — *Summer 2026*

- Evaluated fin geometries, materials, and airflow orientation using **MATLAB** and **ANSYS Fluent**; identified **13.2% greater** simulated heat transfer with front-to-back versus top-down airflow.

Steam Condenser Design | *GE Vernova Design Challenge* — *Summer 2026*

- Evaluated **105 MW** condenser concepts, comparing one and two-tube, two-pass heat-exchanger configurations in **ANSYS Fluent** at equal mass flow rates, predicting **32.6% greater heat transfer** with increased tube count.

Air Engine & Cutting Mechanism| *Mechanical Design / Manufacturing* — *Fall 2025*

- Designed a **rotary-to-linear slicing mechanism** in SolidWorks and manufactured 4 air engines using milling, turning, and 3D printing; measured engine speeds exceeding **2000+ RPM,** documented test results, BOMs, & projected procurement costs.

SKILLS & CERTIFICATIONS

Software: SolidWorks, Fusion 360, Onshape, OrcaSlicer, LTspice, WaveForms, ANSYS CFD, MATLAB, LabVIEW, Excel
Certifications: CSWA, FERPA, HIPAA, Product Management w/SCRUM, Student Design Center, Procore
Technical: CAD Modeling, Mechanical Design, DFM, FEA, Tolerance Analysis, Engineering Documentation, P&ID development
Manufacturing: Machining, Soldering, Electrical Wiring, Additive & Subtractive Manufacturing, PCB Development