Portfolio

# Jackson Merrick

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MSME (Dec. '25) | Mechatronics and Hardware Design | End-to-end ownership: requirements → CAD → prototyping → DFM/drawings → integration/testing. Self-starter with a bias for action. I unite technical execution and accountable collaboration to help my team deliver reliable solutions on schedule.

## EDUCATION:

**Georgia Institute of Technology, Atlanta, GA** Aug 2024-Dec 2025
**George W. Woodruff School of Mechanical Engineering**
*Master of Science in Mechanical Engineering* GPA: 3.57

- Co-Leader, Cru Graduate Student Ministry

**Southern Methodist University, Dallas, TX** Aug 2020-May 2024
**Bobby B. Lyle School of Engineering**
*Bachelor of Science in Mechanical Engineering, Magna Cum Laude* GPA: 3.91

- Lyle Discovery Scholar
- SMU Distinguished Scholar
- Vice President, Tau Beta Pi Engineering Honor Society

## ENGINEERING PROJECTS:

**Robotic Inspection Apparatus — Lockheed Martin (via SMU)**
**Recipient of The Sally Blum Memorial Prize in Mechanical Engineering**
*Integration Lead & Designer* Jan 2024-May 2024

- Owned end-to-end delivery of a mechatronic testing apparatus for F-35 airframe panels: requirements breakdown, architecture, CAD, fabrication, integration, testing. Reduced setup time by 85%.
- Designed and fabricated proprietary linear actuator and 3-DOF robotic arm. Integrated electromechanics.
- Drove procurement of 1,500+ components on a $20k budget.
- 50% under budget: reduced material usage and redesigned for simpler components with no performance loss.
- Delivered on-time to Lockheed: hardware, CAD, manufacturing drawings, assembly drawings/instructions.

## EXPERIENCE:

**Torc Robotics**
*Prototype Hardware Intern,* Blacksburg, VA June 2023-Aug 2023

- Owned requirements → design for dozens of sensor mounts on Level IV autonomous semi-trucks. Pushed concepts through CAD, standards-compliant drawings, fabrication, and on-vehicle integration.
- Prototyped in SolidWorks for CNC machining, 3D printing, and sheet metal; collaborated directly with fabrication to iterate for fit/form/assembly.
- Owned overall design of forward sensor assembly now deployed on every current-generation Torc truck.
- Coordinated purchasing and directed installation of $50k+ of sensors.

**Kaleo Summer Residency (StuMo) / Grand Cypress Golf**
*Resident & Greenskeeper,* Orlando, FL May 2024-Jul 2024

- Completed faith-based leadership residency with daily training on discipleship and small-group leadership.
- Received structured one-to-one mentoring and led a Bible study as part of program deliverables.
- Balanced program requirements with full-time landscaping role at a championship-level golf course; responsibilities included raking bunkers, mowing greens, laying sod, and installing drainage.

## CORE COMPETENCIES:

Mechanical Design | Rapid Prototyping | Design Optimization | DFM | SolidWorks (Flow Simulation, FEA) | MATLAB/Simulink
C | Python | Java | Controller Design