

Leonor Loree

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Education

Georgia Institute of Technology, Atlanta, GA

Aug 2023 - May 2027 (Expected)

- Bachelor of Science in Mechanical Engineering
- Honors Program | GPA: 4.0 | Faculty Honors

Work Experience

Mechanical Engineering Intern

May 2025 - Aug 2025

Plantd Materials (Carbon-negative building materials manufacturer), Oxford, NC

- Planned, designed, and fabricated a motor assembly and housing to retrofit outdated motors on 2 conveyor lines, performing FEA load calculations and communicating with third-party manufacturers to ensure part compatibility and UL compliance
- Optimized 10 material processing operations with work instructions and designed testing rigs to assess young's modulus of unknown conveyor belt materials while working under quality control
- Developed two modular chain tensioners for a conveying pneumatic press to test effects of tensioner position on chain deflection across the line, troubleshooting main line errors
- Designed a new configuration for raw-material processing and 3 new conveyor belt assemblies to automate raw material throughput and reducing human labor by 50%

Manufacturing Intern

Jun 2022 - Aug 2022

Stromquist & Company, Atlanta, GA

- Reviewed electrical design and manufactured 20 industrial electrical control panels, optimizing wiring maps to facilitate ease of review and maintenance
- Fabricated two industrial gas-heating systems, inspecting regulators, blowoff valves, and electrical controls during system stress testing before designing and assembling packaging to ship

Core Skills

- **Software:** SolidWorks, Fusion 360, AutoCAD, Onshape, MATLAB, MS Office
- **Relevant Coursework:** Machine Design, Heat Transfer, Fluid Mechanics, Thermodynamics
- **Fabrication:** CNC (Tormach, MaxiEM Waterjet, CAMaster), Manual Milling, Lathe, Metalworking, Laser Cutting, Additive Manufacturing (FDM, SLA, SLS), Woodworking,
- **Concepts:** CoDR, PDR, CDR, UL Compliance, Factor of Safety, Work Instructions, DFMA

Projects

Manufacturing-Focused Transforming Mascot Design Project

Jan 2025 - May 2025

- Led a team of four to design a freestanding statue capable of transforming from a 3 foot tall mascot to a Ford Model A, manufactured exclusively from additive metal manufacturing and CNC operations
- Designed a scale CAD model of a Ford Model A in Solidworks and transformed it into over 25 unique components with a simple assembly plan, optimizing part thickness to reduce overall model weight

Robot Design and Manufacturing Project

Aug 2024 - Nov 2024

- Collaborated with 4 peers to design and fabricate a multitasking robot within a \$120 budget
- Prototyped and integrated waterjet-cut aluminum cores within 3D printed parts to prevent part wear over time, increasing part durability by over 100% while using only 10% aluminum by volume

Campus Involvement

Prototyping Instructor

Mar 2024 - Present

Flowers Invention Studio, Atlanta, GA

- Led 40+ students through safety protocol and proper use of machine tools in a student-run makerspace
- Apprenticing to gain knowledge of 3 and 4 axis CNC manufacturing and machine maintenance