

# Tyler Hayes

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## **EDUCATION**

*University of North Carolina at Charlotte, Charlotte, NC.* May 2025

Bachelor of Science in Mechanical Engineering

*Honors: Magna Cum Laude (GPA: 3.73/4.0)*

*University of North Carolina at Charlotte, Charlotte, NC.* May 2026

Master of Science in Mechanical Engineering

Concentration in Metrology and Manufacturing

## **ENGINEERING EXPERIENCE**

**TRC Companies, Inc.** Huntersville, NC

*Power Distribution Intern* May 2024 - August 2024

- Collected data on distribution poles in the field
- Created plans to attach new communication cables to distribution poles in SpidaCALC
- Designed underground routes for fiber optic cables
- Shadowed power design engineers to learn how to design poles according to Duke Energy specifications

**Senior Design Capstone Project, Siemens Energy, Charlotte, NC** August 2024 - May 2025

- Developed a fixture to streamline the manufacturing of turbine gland seals and housings
- Reduced preparation time and improved the ease of manufacturing of gland seal components
- Created an immersive virtual reality experience to communicate design intent and functionality effectively
- Produced a to-scale 3D-printed prototype to further demonstrate functionality

**Junior Design Project, UNC Charlotte, Charlotte, NC** January 2024 - May 2024

- Designed and built a functional gripper for a pick-and-place robotic arm
- Performed kinematic and force calculations to meet design and payload specifications
- Programmed and wired an Arduino Uno to autonomously and manually sort colored blocks

## **SKILLS**

- My Portfolio: <https://tylerhayesengineering.com/portfolio>
- Proficient in CAD packages such as Creo, Fusion 360, Solidworks, and OnShape
- Hands-on experience programming and deploying Arduino and Photon 2 microcontrollers