Reece M. Dobro

rmdobro@ncsu.edu | Waxhaw, NC | (980)-347-6003 | reecedobro.onrender.com | linkedin.com/in/reece-dobro

Education

NORTH CAROLINA STATE UNIVERSITY **EXP. MAY 2028**
Bachelor of Science in Computer Engineering and Electrical Engineering
Cumulative GPA: 4.00 | Dean's List: Fall 2024 - Present

Professional Experience

PROCESS ENGINEERING INTERN | WIELAND COPPER PRODUCTS **APRIL 2025 - AUGUST 2025**
- Diagnosed and repaired electronic components of additive manufacturing systems, to ensure reliable prototyping.
- Leveraged Python libraries for data extraction and visualization, enabling engineers to diagnose welding issues more efficiently
- Reverse engineered and redesigned an industrial Autosaw Head using additive manufacturing, reducing cost by 77%
- Saved $6,300 by automating SAP Bills of Materials workflow, reducing updates and improving accuracy.

WEBMASTER | NC STATE ENGINEER'S COUNCIL **APRIL 2025 - PRESENT**
- Established reliability and dependability, having all website updates completed within 12 hours of notification
- Ensured accurate and accessible information for 500+ visitors
- Maintained and optimized website functionality, debugging issues to ensure smooth performance across major devices and browsers

SYSTEMS ARCHITECTURE AND LOW VOLTAGE ENGINEER | NC STATE SOLARPACK **AUG 2024 - PRESENT**
- Assisted with wiring, troubleshooting, and optimizing electrical connections for various systems of a solar powered car
- Configured and reprogrammed custom PCBs for the car's power management system
- Collaborated with mechanical engineers to integrate electrical and mechanical systems through CAN bus

PARTICIPANT | NC STATE IEEE OPEN PROJECT SPACE **AUG 2024 - PRESENT**
- Acquired foundational electrical skills by designing circuits and programming Arduino microcontrollers
- Integrated sensors and transceivers, processing their data and communicating it between devices in hands-on mini projects
- Used acquired skills to build a small-scaled prototype for an energy efficient room that could decrease power consumed by up to 50%

Projects

AUTOMATED FLUSH AND DRY CLEANING CART **JULY 2025 - AUGUST 2025**
- Programmed sequences for water, air, and isopropyl alcohol dispensing to ensure efficient, repeatable cleaning cycles
- Designed and implemented an automated cleaning system using an Automation Direct Click PLC and solenoid valves
- Developed a comprehensive Bill of Materials (BOM), independently sourcing and verifying all components
- Successfully managed intensive power demands and reduced projected costs by 20% while completing all objectives

E-WASTE PORTABLE FAN **MARCH 2025 - JUNE 2025**
- Built a custom fan system using only 3D-printed parts and materials sourced from NCSU E-Waste bins
- Implemented adjustable fan speed using a potentiometer and a automatic turn off function using infrared sensors and logic gates
- Developed and tested power management circuits to ensure safe operation of fans

Skills

Additive Manufacturing
Assembly and C Programming
Computer-Aided Design
Legacy Systems Support
PLC Programming
Python Programming
SAP ERP
Technical Documentation
Windows and Linux

Honors and Awards

Worley "H" and Callie Anne Clark Scholarship Recipient — May 2025
Engineer's Council Scholarship Recipient — April 2025
1st Prize, NCSU First Year Engineering Design Day — March 2025
1st Prize, NCSU 3D Modeling Engineering Village Contest — December 2024
Career and Technical Education Student of the Year — May 2024
Collins Aerospace Scholarship Recipient — May 2024
Union Power Cooperative Scholarship Recipient — May 2024