Reece M. Dobro

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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 - Current

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
- Managed the organization's website, ensuring accurate and accessible information for 500+ visitors
- Maintain and optimize website functionality, debugging issues to ensure smooth performance across 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 CANbus

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 CLEARNING CART **JULY 2025 - AUGUST 2025**
- Programmed sequences for water, air, and ISO alcohol dispensing to ensure efficient, repeatable cleaning cycles
- Designed and implemented an automated cleaning system using an Automation Direct Click PLC and Solenoid Valves
- Created a complete Bill of Materials (BOM) independently, sourcing all components for the system
- Fully completed all project objectives, managing intensive power demand while reducing costs by 20%

E-WASTE PORTABLE FAN **MARCH 2025 - JUNE 2025**
- Built a custom fan system using 2 computer fans, 3D-printed parts, and components sourced entirely from NCSU E-Waste bins
- Implemented adjustable fan speed using a potentiometer, powered by a 5V, 5000mAh power bank
- Developed and tested power management circuits to ensure safe operation of fans

Skills

Additive Manufacturing	Legacy Technology Operations	SAP ERP
Android System Repair	PLC Programming	Technical Documentation
Computer-Aided Design	Python Programming	Windows OS and Linux OS

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