Vincent Wu

Belmont, North Carolina | vwu1888@gmail.com | 870-819-5773 | https://www.linkedin.com/in/vincentjwu/

Education

North Carolina State University — Expected May 2027
Bachelor of Science, Electrical Engineering – GPA: 4.0
Minor, Chinese Studies – GPA: 4.0

Gaston College — May 2023
Associate of Science – GPA: 4.0

Experience

Mechatronics Engineer Intern – Volvo Group (May 2025 - Aug 2025)
- Designed an automated system to reduce driver efforts during trailer setup
- Used Simulink and Speedgoat computer to handle real-time controls of the automated system
- Created custom UI for the system using Next.js and Flask

Mechatronics Engineer Intern – Volvo Group (May 2024 - Aug 2024)
- Developed traction features involving airbag suspension
- Implemented simulation of differential lock into hardware-in-the-loop testing
- Analyzed HIL development workflows and proposed new structures to improve simulation efficiency

Undergraduate Research Assistant – AERPAW (Jan 2024 - May 2024)
- Assembled electrical systems for a rover-type wireless communication testbed
- Researched more reliable IMU sensing for drone testbeds

Lead Instructor – Queen City Robotics Alliance (Jun 2023 - Jul 2023)
- Led the instruction of multiple camps to teach 4th through 8th graders how to program in Python through the use of drones
- Prepared teaching materials and custom tools to enhance the students' learning

Project Experience

Electronics Junior Lead – Pack Motorsports Baja SAE (Sept 2024 - Present)
- Development and integration of a custom DAQ system
- Fabricated sensors and wiring harnesses to fit the specific needs of the car
- Management of multiple concurrent projects and coordination with other subsystems

Engineering Captain – YETI Robotics (Dec 2022 - Jul 2023)
- Coordinated the cooperation between mechanical, electrical, and software subteams to develop a World Championship level robot
- Advised subteam managers on solutions and priorities
- Assessed and supported the needs of individual team members and the team as a whole

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Licenses & Certifications

Certified SolidWorks Professional - Dassault Systèmes

Skills

Programming
Java | Go | Python | C/C++ | MATLAB | Next.js | Flask

Technical
KiCAD | Real-time computers | SolidWorks | Simulink | Arduino

Interpersonal
Project Management | Teaching

Honors & Activities

University Theatre - Scene shop, sound board operator, spotlight operator
Sept 2023 - Present

IEEE HKN Beta Eta Chapter
Nov 2024 - Present