John Waugh

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EDUCATION

Appalachian State University   **Boone, NC**
B.S. Computer Science | GPA: 3.6/4.0   *Aug. 2022 - Present*
- **Relevant Coursework:** Data Structures and Algorithms, Software Engineering, Computer Systems, Technical Writing, Statistical Data Analysis
- **Awards/Honors:** Dean's List (all semesters)

WORK EXPERIENCE

Team Sunergy, [Appalachian State University Competitive Solar Vehicle Team](#)   **Boone, NC**
Embedded Systems Engineer   *June 2023 - Present*
- Debug and improve telemetry systems used in the car
- Collaborate with team members to develop new systems quantifying and analyzing data received from the car
- Utilized Agile principles during development of a digital dashboard that converts vehicle data into a human-readable format

Race Operations Sub Lead   *Jan. 2024 - Present*
- Build corporate connections and maintain sponsor relationships for the team
- Brainstorm ideas for and plan new fundraising/outreach efforts
- Help develop and organize schedules/agenda for weekly team meetings

PROJECTS AND ACTIVITIES

[Personal Portfolio](#)
- Developed a portfolio website showcasing my background, skills, and projects in more depth, updated regularly
- Languages used include HTML, CSS, JS

Live Telemetry Data Web Application
- Developed a web application which displays data signals from a vehicle into a user friendly readable format
- Features include a score calculator for solar vehicle race applications, live telemetry data from various sensors throughout the vehicle, a weather widget based on geolocation, and a live fault/error code display
- Data is recorded in real time to a CSV file for further analysis
- Languages and frameworks used include React.js, HTML, CSS, JS

Data Visualization and Analysis Tool
- Currently developing a data visualization and analysis tool to improve driver behaviors and increase design efficiencies in solar vehicle
- Features include reading data from CSV files and generating informative graphs
- Future iterations will incorporate machine learning models to maximize selected efficiency targets
- Languages and libraries/frameworks used include Python, Matplotlib, Pandas, Streamlit

SKILLS & INTERESTS

Computer: C, Python, Java, SQL, Full-Stack Web Development (including HTML, CSS, JS, React, etc), R
Interests: Full-Stack Web Development, Embedded Systems/Telemetry Design, Quantitative Development, UI Engineering/Design, Software Engineering in Motorsport
Hobbies: Skateboarding, Snowboarding, Personal Finance and Investing, Soccer, Motorsport