Alistair Westbrook

(727) 259-5057 | Westbrook.alistair@gmail.com | linkedin.com/in/alistairw | Alistairw.me

PROFESSIONAL SUMMARY

Innovative mechanical engineering student at the University of Nebraska-Lincoln driven to create new technologies. Designed and prototyped an award-winning hydroponic monitoring system, leading the team to 2nd overall at Corn Hacks 2025. Eager to apply rapid prototyping and technical skills to develop novel engineering solutions.

EDUCATION

BS, Mechanical and Materials Engineering **Expected May 2029**
University of Nebraska-Lincoln Lincoln, NE

- **Involvements**: Baja SAE Student Design Team

High School **Graduated 2025**
Cypress Creek High School Wesley Chapel, FL

- **GPA**: 4.09 Weighted | **Honors**: Graduated Magna Cum Laude, National Honors Society.

WORK EXPERIENCE

Certified Trainer **Jan 2025 – Nov 2025**
Raising Canes Wesley Chapel, FL – Lincon, NE

- Trained new employees on operational protocols, safety standards, and customer service excellence.
- Effectively communicated during peak times resulting in smoother team cooperation and an easier transfer between shifts.

Crew Trainer **May 2021 – Jan 2025**
Charleys Philly Steaks Wesley Chapel, FL

- Demonstrated exceptional reliability and leadership over a 4-year tenure, contributing to the successful launch and stabilization of a new store location.
- Managed food preparation workflows under strict time constraints, ensuring quality consistency and safety regulation compliance.

PROJECTS

TerraFlo Analytics | C++, ESP32, Hardware Prototyping, Embedded Systems **Nov 2025 – Present**

- Achieved 2nd Place Overall at Cornhacks 2025 (out of 30 teams) by designing and prototyping an automated hydroponic monitoring system in under 24 hours.
- Engineered a real-time water quality sensing node using ESP32 microcontrollers to track electrical conductivity, water level and temperature data with high precision.
- Iterating on the initial prototype to enhance system scalability and user accessibility, with the goal of transitioning from a hackathon project to a viable consumer product.

Baja SAE Freshman Project | SolidWorks, Prototyping, Component Selection **Aug 2025 – Present**

- Modeled the body and ergo cart and ensured parts fit within the technical requirements.
- Collaborated with the leads to ensure my design is what they had envisioned the cart to look and function.

TECHNICAL SKILLS

Engineering & Design | SolidWorks, 3D Printing, Rapid Prototyping, PCB Layout
Hardware | ESP32, Raspberry Pi, Circuit Design
Tools | Git, Arduino IDE, Visual Studio Code, Microsoft Office Suite