

AMETHYST O'CONNELL

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EDUCATION

University of Minnesota Minneapolis, MN Graduation December 2023
Bachelors of Engineering: Electrical Engineering, minor in Sustainability Studies

- Electric Drives
- Beginning Japanese I
- Sustainable Energy Supply
- Analog Electronics
- Computer Architecture
- Power Systems Journey

SKILLS

Python	Surface Mount Technology	Circuit Diagrams
C/C++	PTC Creo	Microsoft Office
GitHub	Soldering	Multisim
HTML/CSS	Altium Designer	Breadboarding

EXPERIENCE

University of Minnesota Minneapolis, MN 5/2023 – 8/2023

Undergraduate Research Assistant for WorldMart Solar Food Truck

- Worked on the realization of a feasibility study on solar on a food truck
- Reached out to the local community in Worthington, MN, to talk about the food truck and solar

University of Minnesota Minneapolis, MN 9/2022 – 12/2022

Teaching Assistant for GCC 3027 Power Systems Journey

- Guided students through course experiences and field trips
- Facilitated online learning experiences through course website

Carlisle Technologies Minneapolis, MN 5/2022 – 8/2022

Automation Engineering Intern

- Prototyped manufacturing process for computer vision system
- Integrated technology with prototypes from mechanical engineers

Patterson Thunte Minneapolis, MN 6/2021 – 8/2021

Patent Law Intern

- Assisted in writing patents, drafting patents, and in creating figures for patents
- Performed prior art searches to ensure that an invention is new and unique

Danfoss Eden Prairie, MN 6/2020 – 8/2020

Control System Design for Autonomous Off-Highway Machines Externship

- Lead the Electrical team, and designed an electrical system for an autonomous lettuce harvester
- Worked closely to integrate the design with a team of mechanical and industrial engineers
- Presented design before a group of people

Loram Maintenance of Way Hamel, MN 5/2019 – 8/2019

Electrical Engineering Intern

- Presented design changes to engineering leadership through a design review process
- Used Autodesk Inventor and Vault alongside Promis-e to represent electrical components and their placement on a train

NASA

NASA L'SPACE Mission Concept Academy 6/2019 - 8/2019

- Paired with a virtual team, created a mission concept document in the style of NASA's official documents

NASA L'SPACE NPWEE 9/2019 - 5/2022

- Working with a virtual team, creating a NASA proposal, and competed for \$10,000 of funding. Was fourth overall and was the proposal reviewer who selected the winning proposal. Advised remotely while the project was built at Colorado State University, and transferred to a research team there.

ASSOCIATIONS

Institute of Electrical and Electronics Engineers (IEEE)

Surface Mount Technology Association (SMTA) - UMN Chapter President

Innovative Engineers - UMN Chapter President/Interim President