Nicholas Witulski

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EDUCATION

Bachelor of Science in Computer Engineering — University of Nebraska-Lincoln
Bachelor of Science in Electrical Engineering — May 2025

- GPA: 3.7 | Focus: Communications & Digital Signal Processing

SKILLS

Programming	C, C++, Python, Matlab, Java, VHDL, SQL
Platforms and Tools	KiCAD, Linux, Git, Quartus, Revit, AutoCAD
Technical Skills	Embedded Hardware & Software Design, PCB Design, Robotic Electrical Design
Certifications	Fundamentals of Engineering (FE) Certified, NASA NE Space Grant Fellow

EXPERIENCE

Embedded Design Engineer I — May 2025 - Present
Embedded Design Engineering Intern — May 2024 – May 2025
EF Johnson KVCKENWOOD — Lincoln, NE

- Develop and optimize C++ code to resolve software defects, integrate customer-specific enhancements, and revise existing functionalities for KENWOOD radio systems
- Work with a complex multi-threaded codebase, effectively handling timers, analog & digital signals, and user interface components
- Write Python and MATLAB scripts to visualize and analyze data, highlighting discrepancies in system behavior
- Interface with dual on-board processors, coordinating communication between the digital signal processor and the embedded control processor
- Adhere to the P25, DMR, and NXDN standards

Technology Systems Design Intern — May 2023 – May 2024
IP Design Group & Alvine Engineering — Omaha, NE

- Contributed to the technology systems design process for over 10 new construction and renovation projects
- Communicated directly with clients to define project requirements and scope, translating their needs into clear technical documentation and coordinating with MEPT engineers to ensure alignment with design objectives

Projects

Capstone Project — https://github.com/Akoenigs2/SodaShop

- Developed a fully functional automated drink dispenser using an RP2040-based custom PCB
- Designed a touchscreen GUI using the Python guizero library for intuitive user interaction
- Programmed pump control logic in MicroPython to accurately dispense mixed beverages

Lunabotics Team Lead

- Directed a cross-functional team of 30+ engineering students to develop a lunar rover for regolith collection and berm construction, overseeing technical design, fabrication, and a $28K budget for NASA's 2025 Lunabotics competition

Lunabotics Electrical Member

- Designed and implemented a robust electrical system for a lunar rover, ensuring optimal functionality under lunar conditions
- Soldered, crimped, and created wires between electrical components including the fuse box, motor controllers, XT60 Dsubs, cameras, linear actuators, motors, and servos
- Calculated the total power draw of all the components to accurately select the battery size, wire gauge, and fuses