JOSEPH MANTERNACH

ELECTRICAL ENGINEER

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Electrical engineering major and mathematics minor seeking to use research, computing, circuit design, and strong mathematical skills. I believe my fast - learning abilities, commitment to succeed, and relevant studies make me a perfect fit for this role. Expected to graduate from The University of Iowa in December of 2025.

EXPERIENCE

PART TIME STUDENT QUALITY ENGINEER

John Deere

October 2022 - Present

Dynamic software developer leveraging Python, Ignition, and SQL within an Agile team to elevate John Deere's Quality Management System, driving enhancements and optimizing performance across worldwide operations.

- Conducted testing and investigation of seed sensor and delivery systems for real world applications.
- Manipulated SQL database and Python scripting to establish an efficient system for accessing and revising process documentation across John Deere Globally.
- Assembled complex wire harnesses for power, communication, and control applications.
- Spearheaded the development and upkeep of a digital internal audit tool, ensuring adherence to industry standards and organizational requirements.

PRINCIPLES OF ELECTRONIC INSTRUMENTATION TEACHING ASSISTANT

University of Iowa

January - May 2024,
August - December 2024

- Guided students by helping construct circuits and conduct measurements as a lead lab instructor.
- Addressed student inquiries by explaining complex concepts in a comprehensible manner.
- Provided constructive feedback on student assignments.

FARMHAND

Summer 2021 - 2023

- Maintained the land and repaired the equipment used.
- Landscaping

EDUCATION

UNIVERSITY OF IOWA

Electricial Engineering and Mathematics (Minor)
Robotics Club Member
3.54 GPA
December 2025

PROJECTS

Heart Rate Monitor
Internet Protocol for Server and Client Communication
Pulse Width Modulation Motor Controller
Platformer Game Development

EXPERTISE

- Microcontrollers
- C++
- SPICE

- MATLAB
- Wire Harness Construction
- SQL

- KiCad
- Python
- Microsoft Power Platform