

# JOSEPH MANTERNACH

## ELECTRICAL ENGINEER



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joemanternach.com



Coralville, Iowa

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.*

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

### 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.
- Issue identification and resolution of automatic watering systems.

## EDUCATION

### UNIVERSITY OF IOWA

Electrical Engineering and Mathematics

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