

Ryan Vance

Electrical Engineering Student | Graduating May 2026

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Technical Skills

- *Programming Languages:* Python, JavaScript, React, C/C++, Arduino IDE
 - *Software & Tools:* Excel, PLC Programming, VS Code, AutoDesks CAD Softwares, Data Parsing
 - *Engineering:* Microcontroller Programming, Circuit Design, Control Systems, PID Control
 - *Platforms:* Teensy 4.1, ESP32, Arduino, Teamhood, Confluence, JIRA, Various Engineering Software

Work Experience

US Army Corps of Engineers - Civil and Environmental Engineering Intern 2022 - 2024

- Coordinated a team of 15 engineers responsible for levee repairs in Clinton following 2023 flood

PCT Ebeam and Integration - Electrical Engineering Intern 2024 - 2025

- In 3 weeks developed a React-based diagnostic tool that transformed troubleshooting word document into an interactive session management app for customer service based on 1,000 JIRA tickets
 - Wrote Python scripts with API functionality and data parsing capabilities to generate time reports
 - Designed a PLC and HMI program for simple tasks and assisted in troubleshooting for an FAT
 - Designed a spreadsheet to parse BOM from Teamhood and create a structure from sheet dependencies
 - Create JIRA/Confluence troubleshooting system with flowchart, forms and automations

John Deere Part Time Student - Electrical Systems *Sept 2025 - Present*

- Determine feasibility of replacing 17 combine rotary sensing linkage arms to magnetic sensors
 - Reduce internal review timeline by 50% within Electrical Systems Team with customizable agent, additionally raising the quality of requirements. System designed for scaling to the enterprise level
 - Automating dispositioning of Vision issues using Databricks and copilot studio to learn over time

Education

Western Illinois University *99 credits* *GPA 3.9* *2022 - Present*

- Majoring in electrical engineering with minors in communications, mathematics, and physics
 - Microcontroller controlled 3D printed LED Chessboard and chess engine in Mechatronics
 - PID controlled Ball Balancer robot programmed for stability and pattern movement using Teensy 4.1
 - Group leader in various semester projects including building collapse and Arduino speech detection

Senior Design - John Deere Predictive Hoist Maintenance System August 2025-Present

- Initiated communication with leadership at Deere leading to a four student project at Harvest Works
 - Collect data indicative of upcoming hoist failures, reliably communicate live data wirelessly to SQL database, and alert the maintenance team by displaying hoist events & health on Power BI dashboard
 - Scaling to 1,000+ critical hoists in the factory, saving millions yearly and reducing real safety risks

Scott Community College *26 credits* *GPA 3.9* *2019 - 2022*

- Communicated with John Deere staff to create model combine part using their design process
 - Constructed full sized projects for regional school competitions such as a six-foot trebuchet, and 13-foot cardboard boat, which received first and third place respectively of 20 teams

Activities

Boy Scouts of America; Eagle Scout *LeClaire, IA* *2010 - 2022*

Academic Club of Engineering President Moline, IL 2022 - Present

- Restarted the club to help individuals pursue their engineering interests, grown to 20+ active members
 - Creating group job shadowing opportunities for all members to gain insight into the workforce
 - Organized and led coding workshop for 80 middle school students, promoting engineering week