

Jacob Kelly

Electrical and Computer Engineer

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EDUCATION

Eastern Michigan University

Bachelor of Science, Electrical and Computer Engineering, 3.16 GPA

Relevant Coursework: Circuit Analysis II; Control Systems, Power Electronics

Ypsilanti, Michigan

8/2020 – 12/2024

Huron High School

International Baccalaureate (IB) Learner

Relevant Coursework: Programming; Robotics; PLTW

Ann Arbor, Michigan

09/2016 – 06/2020

WORK EXPERIENCE

Target Corporation

Guest Advocate

Ann Arbor, Michigan

08/2020 – Present

- Additional roles learned: Drive-Up, Cart Attendant, Service Advocate, Tech Sales.
- Drive-Up: Managed 15+ concurrent orders delivered consistently under two minutes with a team of three.
- Cart Attendant: Constant workflow, ensuring free carts for guests and maintaining store cleanliness.

Learned skills: Time Management, High Intensity Workload, Team Coordination, Accountability

ACTIVITIES AND LEADERSHIP

EMU Senior Capstone Team Leader

01/2024 – 4/2024

- Ensuring deadlines are met, supporting team members, and submitting progress reports
- Designed a 'Smart Garden Sentry' using ML and object detection to only target rodents

EMU IEEE Club Member

01/2023 – 12/2024

- Worked on projects relating to EECE, discussing tech news, and internship preparedness

PROJECTS

Theseus Contributor

December 2024

- Theseus is an open source modded game launcher, with thousands of end users.
- Programmed in Vue.js and Rust, I contributed the most user requested feature. Work included concurrent asynchronous http requests, image and data manipulation, and UI design

Squirrel-Be-Gone

January 2024

- Senior Capstone Project, in a team of 4, we designed a smart airsoft sentry.
- Sentry used a Jetson Nano and computer vision ML to target squirrels and small rodents to harmlessly deter them from gardens, without targeting people, children, or pets.

Battery Replacer PCB

July 2023

- Created a PCB using Kicad and manufactured with JLCPCB. Hand soldered
- Designed to replace 1.5V/3.0V AA/AAA batteries. Takes a 5V input to charge Lithium-ion battery, 1.5V/3.0V LDO output. Used with a 5V Qi wireless receiver module to allow wireless charging and infinite runtime

Home Media Server

December 2022

- Deployed an Unraid Server with multiple drives, using the command-line and Nano Editor
- Created a reverse proxy using nginx and integrating it with docker containers on the server. The reverse proxy worked with a custom domain name to create https connections with valid certifications using Let's Encrypt
- Features include: Cloud File Server, Network-wide Ad Blocker, Homeassistant, Remote PC Access

ADDITIONAL INFORMATION

- **Technical Skills:** NCEES FE Certified, MS Office Suite, Rust, C++, Java, Javascript, Jira, CANalyzer, CAD, 3D Printing, Linux, Docker, Unraid, PCB Design, Soldering SMD and THT, Building Computers
- **Languages:** Fluent in English; Conversational Proficiency in Spanish