

## EDUCATION

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### Iowa State University Ames, IA

M.E. in Computer Engineering

GPA: 3.53/4.00

Graduated May 2025

B.S. in Computer Engineering

GPA: 3.59/4.00

Graduated May 2023

## EXPERIENCE

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### Iowa State University Teaching Assistant, Winds Guide

Jan. 2023 - May 2025

- Collaborated with instructional teams to assess and provide feedback for students.
- Improved upon previous work to provide more comprehensive instructions for peers.
- Taught complex instructions quickly to make efficient use of time.

### Prism Java Plugin Developer, Community Moderator

Oct. 2016 - Jan. 2020

- Developed and modified Java plugins to increase functionality and efficiency.
- Collaborated with a team to moderate a community to provide a safe environment.
- Maximized efficiency by dividing up tasks amongst staff members.

## PROJECTS

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### homebridge-dyson-bp01

Sep. 2022 - Present

- Built a plugin using Node to add HomeKit support to an IR-controlled fan.
- Developed a system to sync the device state to the plugin to increase reliability.
- Published to NPM to allow other users to control their own devices.

### MatrixDisplay

Dec. 2021 - Present

- Designed a decorative device using a Raspberry Pi and Python.
- Created a web interface to allow for easy control on the local network.
- Built an API to allow for limitless integration into a smart home.

### Simple Graphics Processor

Jan. 2022 - Feb. 2023

- Designed GPU architecture in VHDL and driver software in C using OpenGL.
- Collaborated with a team to engineer low-level solutions to complex algorithms.
- Prioritized code correctness to reduce the amount of compilations needed to test.

### CyBot

Jan. 2021 - May 2021

- Programed an iRobot Roomba using C to drive semi-autonomously.
- Collaborated with a group to engineer solutions within time constraints.
- Created an interface to visualize surroundings given the raw sensor data.

## SKILLS

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### Languages

Java, Python, C, TypeScript, JavaScript, HTML, CSS, VHDL, Verilog, Kotlin

### Tools

JetBrains IDEs, VS Code, Git, Docker, Vivado

## ACTIVITIES

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### Marching Bands and Concert Ensembles

Aug. 2011 - May 2025

- Collaborated as an ensemble to rehearse and perform for public performances.
- Practiced as an individual to increase personal instrumentalist and marching abilities.
- Worked with section in rehearsals to prepare and improve for performances.