

# Joe Cardenas

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## EDUCATION

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### Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

Bachelor of Science in Computer Science

August 2024 – Present

- **Coursework:** Linear Algebra, Mathematical Foundations for CS, Principles of Imperative Computation

### Hopkins School

New Haven, CT

Graduated with Cum Laude distinction

September 2020 – June 2024

- **Coursework:** Web Design, Topics in Programming, Senior Project (Breadboard Electronics)

## EXPERIENCE

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### Endeavour Inspired Infrastructure

Darien, CT

GIS and Web Development Intern

June 2023 – August 2023, June 2024 – August 2024

- **Global Infrastructure Map:** Developed new user interfaces, managed product deployment, and integrated real-time energy pricing data and analysis into the infrastructure map using Mapbox, React, and WMS.

## PROJECTS

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**Memeinator iOS App:** An open-source iOS app to create layered and complex transformations to text using Swift and SwiftUI, with a landing page built in SolidJS.

**StatShot iOS App:** A golf statistics and practice app built with Swift, SwiftUI, and SwiftData.

**Hydroponics Robot:** A robot to manage hydroponic plants using custom hardware and software developed in C++ and Javascript, presented in an easy-to-use web UI.

**Homelab:** A personal server that uses Docker and other deployment techniques to host personal web pages, databases, game servers, and many other experiments.

**8-Bit Computers:** One 8-bit computer constructed from scratch using only simple ICs, and one 8-bit computer architected around the 6502 CPU. Each was hand-built on a breadboard and programmed in assembly or raw binary instructions.

## LEADERSHIP

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### HopCodes

Hopkins School

Club Head

September 2020 – June 2024

- **Learning:** Taught students who were interested in programming how to create projects from scratch.
- **Collaboration:** Led group projects to teach club members about working in a team and building practical projects.

### Pathfinder

New Haven, CT

Teaching Fellow

September 2022 – June 2024

- **Teaching:** Worked with co-teachers to create 8th-grade math lesson plans and led classes through new learning and example problems.
- **Tutoring:** Worked one-on-one with students to help work through practice problems and teach topics not covered in larger classes.

## SKILLS

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**Languages:** Swift, JavaScript, TypeScript, Java, C, Rust, Python

**Technologies:** Firebase, Redis, SwiftUI, SwiftData, Breadboarding, Digital Electronics

**Interests:** Consumer Electronics (Computers, VR, A/V Equipment), Economics, Building Computers, Gaming, LEGO, Chinese Language