

Owen Cook

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I am passionate about coding and electronics projects, especially using microcontrollers. I am looking for internships and exposure to general or embedded software engineering, machine learning, systems design, autonomy, or any computer-related role that allows me to innovate.

Education

University of Vermont

Sept 2022 – May 2026

BS in Computer Science, BS in Electrical Engineering; Pure Mathematics Minor

- GPA: 3.77/4.0
- **Coursework:** Digital Control w/ Embedded Systems, Data Structures & Algorithms, Algorithm Design & Analysis, Electronics I and II, Software Engineering, Machine Learning, Linear Algebra, Calculus I, II, & III
- **Programming Languages:** Python, Flask, Numpy, Pandas, Java, C++, JavaScript, HTML, CSS, SQL, Prolog, RTOS
- **Other Skills:** Raspberry Pi, Arduino, ESP32, PCB design and construction with KiCad, circuit simulation with LTSpice, AC/DC circuit analysis (including AC filters, 3-phase AC, and semiconductors), and solving circuits with Python.

Projects

MBTA LED Map — github.com/owncook/mbta_map 📄

Created a poster of the Boston train system with LEDs controlled by ESP32 that give the illusion of a train moving. Plan to create PCB and integrate MBTA API to add live updates.

Solar Powered DC-DC Converter — github.com/owncook/Solar-Power-DC-DC-Converter 📄

Designed a 20V to 5V DC-DC converter using KiCad and simulated with LTSpice. Created a custom PCB layout in KiCad and tested for stable output.

Galaga Reimagined — github.com/owncook/CS3050-FinalProject 📄

A reimagined version of Galaga using Python Arcade, PyInstaller, and Google Firestore. Group project organized with Github. Won third place in the Advanced Programming category of the UVM Computer Science Fair.

Experience

Teaching Assistant

University of Vermont

Burlington, VT

August 2024 – Present

Assist students with labs using Raspberry Pi, host office hours, and grade labs and homework.

Server/Food Runner/Busser

Atlantic Hospitality Group/Surfside Restaurant

Salisbury, MA

Summer 2023/2024

Wait on tables at busy seasonal beach venue, deliver drinks, and ensure restaurant is clean and ready for business.

Front Desk Attendant

University of Vermont Federal Work Study

Burlington, VT

Oct 2023 – May 2024

Enter packages into the system upon arrival, help students with several tasks such as loaner keys and renting equipment, and mail services.

Fullfillment and General Merchandise

Target Corporation

Wilmington, MA

Nov 2021 – Jan 2023

Fulfill in-store and online orders, customer service, and stock shelves.

Awards/Involvement

Third Place UVM Computer Science Fair

Dec 2024

My Galaga project won third place in the Advanced Programming Category.

Alternative Energy Racing Organization (AERO)

Sept. 2024 - Present

Designing a battery management system using RTOS and C++ to ensure safety in an electric racecar.

Golden Key Honors Society

Oct 2023

Golden Key is the world's largest collegiate honor society. Membership in the Society is by invitation only and applies to the top 15% of college and university sophomores, juniors, and seniors.