

EDUCATION

Massachusetts Institute of Technology

B.S. in Electrical Engineering and Computer Science

M.Eng. Candidate in Computer Systems

Graduated May 2023

Expected Graduation May 2025

EXPERIENCE

Embedded Systems Engineering Associate

Jun 2022 - Jun 2023

ForeLight

- Designed and developed a bioreactor control and monitoring system to be deployed on embedded Linux devices
- Implemented a highly scalable communication framework to link reactors and servers via gRPC
- Introduced a flexible central database with support for live monitoring and reactor data recovery mechanisms

Backend Engineer

Sep 2024 - Present

Sanctions Power

- Containerized the core application to simplify environment configuration and CI/CD pipelines
- Created and maintained a self hosted infrastructure solution with an emphasis on privacy and security

Electrical Engineering Intern

Oct 2021 - May 2022

ForeLight

- Prototyped several bioreactor LED control systems for dynamic lighting capabilities
- Created manual control interfaces that were then mounted into NEMA 4 enclosures
- Initiated discussions to expand our automated data capturing capabilities and started designing remote reactor infrastructure

Embedded Systems Engineering Intern

Jun 2020 - Dec 2020

Novo Space

- Developed a telemetry visualization and storage system ready to be deployed on embedded systems onboard satellites
- Leveraged Docker to make the telemetry system scalable across many different machine architectures

LEADERSHIP

Gordon-MIT Engineering Leadership Program

Sep 2021 - May 2023

Gordon Engineering Leader

- Developing leadership, teamwork, and communication skills in a selective leader development program
- Actively coach, advise, role model, and assess the performance of a team of first year GEL Program engineering students
- Attended a project engineering course to learn skills particularly relevant to project planning and management

Delta Kappa Epsilon

Jun 2021 - May 2022

President

- Served as the interface between administration, alumni, and fraternity members practicing strong communication skills
- Spearheaded the return to campus post-pandemic and navigated challenging situations

SKILLS & INTERESTS

- *Programming Languages*: Go, C/C++, Python, Bash, TypeScript, Lua, Assembly, Rust
- *Linux*: Arch, Ubuntu, Debian, Fedora
- *Tools*: Git, Docker, Task, Caddy
- *Microcontrollers/SoC*: Raspberry Pi, BeagleBone Black, ESP32, Teensy 4.1
- *Hardware Design*: Designed a RISC-V CPU using Minispec which could run assembly programs in a simulation
- *Self Hosting*: Experimented by hosting popular services such as file sharing with Seafile and a private git server using Gitea
- *ThinkPad X230*: Used a CH341A external programmer to flash coreboot onto the BIOS module, removing the hardware whitelist