Keegan Deppe

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EDUCATION

Massachusetts Institute of Technology

B.S. in Electrical Engineering and Computer Science — Graduated May 2023
M.Eng. Candidate in Computer Systems — Expected Graduation May 2025

EXPERIENCE

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

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

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