Keegan Deppe

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EDUCATION

Massachusetts Institute of Technology
Sep 2019 - May 2023

Majoring in Electrical Engineering and Computer Science (6-2)

Relevant Coursework: Introduction to Machine Learning, Operating Systems Engineering, Introduction to EECS via Interconnected Embedded Systems, Fundamentals of Programming, Computation Structures

EXPERIENCE

Embedded Systems Engineering Associate
Jun 2022 - Apr 2023

ForeLight

- Designed and developed a bioreactor control and monitoring system to be deployed on resource-constrained embedded devices
- Utilized gRPC to create highly scalable communication services between reactors and servers
- Began testing a central database with support for live monitoring and reactor data recovery mechanisms via local backups

Electrical Engineering Intern
Oct 2021 - May 2022

ForeLight

- Designed and assembled a manual control interface which was mounted into a NEMA 4 enclosure
- Prototyped several bioreactor LED control systems for dynamic lighting capabilities

Embedded Systems Engineering Intern
Jun 2022 - Apr 2023

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 machine architectures

EXTRACURRICULAR ACTIVITIES

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

- Leveraged communication skills to coordinate between administration, alumni, and fraternity members
- Practiced strong leadership capabilities to navigate challenging situations

SKILLS & INTERESTS

- *Programming Languages*: Go, Python, C/C++, TypeScript, Assembly, and Bash
- *Linux*: Experience using Arch, Ubuntu, Debian, Fedora
- *Containerization*: Dockerized an application for embedded device deployment
- *Microcontroller/SoC*: Experience programming on Raspberry Pi, Beagle Bone Black, ESP-32
- *Hardware Design*: Designed RISC-V CPU using Minispec which could then be simulated to run assembly programs
- *ThinkPad X230*: Used a ch341a external programmer to flash coreboot onto the BIOS module, removing the whitelist