Keegan Deppe

kdeppe@mit.edu • keegandeppe.com

EDUCATION

Massachusetts Institute of Technology Sep 2019 - May 2023

Bachelor of Science in Electrical Engineering and Computer Science (6-2)
Relevant Coursework: Hardware Hacking, Software Construction, 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 - 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

Lab Assistant Sep 2021 - Dec 2021

Introduction to Machine Learning

- Assisted students in practicing the fundamentals of several machine learning techniques through weekly labs
- Reinforced material taught in lecture during weekly office hours to help students prepare for assignments and quizzes

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, Python, C/C++, 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 whitelist