

Kye Burchard

kyeb@mit.edu | github.com/kyeb | (406) 217-6239 | kyeburchard.com

EDUCATION

MIT | SB ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
GPA: 5.0

2017 - 2021

EXPERIENCE

Stripe | SOFTWARE ENGINEERING INTERN

May - Aug. 2020

- Building infrastructure to improve performance of the Stripe dashboard, a massive React/Redux app

web.lab | OPERATIONS CHAIR

Jan. 2020

- Coordinated logistics, course staff, and delivered 2 lectures for 200 person IAP class

Microsoft Garage | SOFTWARE ENGINEERING INTERN

May - Aug. 2019

- Designed and implemented a modular, scalable data architecture for an independent intern project
- Facilitated communication across 4 disparate dev teams to produce a working prototype

MIT Media Lab | UNDERGRADUATE RESEARCHER

May - Aug. 2018

- Designed algorithm and data pipeline to improve location detection for Rhythm Badges project

HackMIT | LOGISTICS HEAD 2019, DEV & CORPORATE RELATIONS 2018

April 2018 - Sept. 2019

- Heading up a 12-person logistics team to plan and execute MIT's largest hackathon
- Designed layouts, schedules, and staffing for a 1,200-person event over 3 days

Maseeh Hall | PRESIDENT 2019, TREASURER 2018, WEBTECH CHAIR 2018-2020

Jan. 2018 - May 2020

- Led largest dorm at MIT in reviving clubs and committees, resulting in a 20% improvement in retention

Other

- **CLICK** Startup focusing on empowering influencers to be more productive
- **SIPB** Contributing member to MIT's volunteer student computing group
- **6.08** Lab assistant for Intro to EECS via Interconnected Embedded Systems

PROJECTS

Overcooked FPGA | SYSTEMVERILOG, C++, PYTHON

github.com/kyeb/overcooked-fpga

An online-multiplayer implementation of the game Overcooked, implemented entirely in hardware.

Designed & implemented protocol to synchronize game state between FPGAs over the internet in real time.

Politichat | REACT, EXPRESS, SOCKET.IO, JITSI

politi.chat

Startup helping campaigns in the age of COVID-19 with a replacement for 1-on-1 conversations with candidates. Project for CSg1r at Harvard.

COURSEWORK

Fall 2020	6.111 Digital Systems Lab, 6.837 Graphics, 6.S081 Operating Systems, 6.S079 Quantum Circuits
Spring 2020	6.858 Computer Security, 18.05 Probability & Statistics, CSg1r Political Tech (Harvard)
Fall 2019	6.172 Performance Engineering, 6.034 Artificial Intelligence, 18.06 Linear Algebra
Spring 2019	6.033 Computer Systems Engineering, 6.002 Circuits, 6.036 Machine Learning

SKILLS

ADVANCED	Python, Linux, JavaScript, C
KNOWLEDGEABLE	React, Typescript, HTML/CSS, C++, Git, L ^A T _E X, C#, Vim
EXPLORING	Ruby, Rust, Bash, Redux