

# Kye Burchard

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## EDUCATION

**MIT | SB ELECTRICAL ENGINEERING AND COMPUTER SCIENCE**  
GPA: 4.9

2017 - 2021

**Great Falls High School | GREAT FALLS, MONTANA**  
GPA: 4.0 | Rank: 1/298 | ACT: 35 | National Merit Scholar

2013 - 2017

## EXPERIENCE

**Microsoft Garage | SOFTWARE ENGINEERING INTERN**

May - Aug. 2019

- Designed and implemented a modular, scalable data architecture for an independent intern project
- Initiated and led a reorganization of team's Git workflow
- Facilitated meetings and communication across 4 disparate dev teams to produce a working prototype

**MIT Media Lab | UNDERGRADUATE RESEARCHER**

May - Aug. 2018

- Designed an algorithm to improve accuracy of location detection for Rhythm Badges project
- Developed a full data processing pipeline, from raw output to analyzable dataframes, leveraging multi-core processing for efficiency

**HackMIT | LOGISTICS HEAD 2019, DEV & CORPORATE RELATIONS 2018**

April 2018 - Present

- Heading up a 12-person logistics team to plan and execute MIT's largest hackathon (HackMIT 2019)
- Secured \$25,000+ in sponsorship funding for HackMIT and TechX
- Supervised 100 mentors, 50 volunteers, hosting for 300 hackers, WiFi, and packages for a 1,200 person hackathon (HackMIT 2018)

**Maseeh Hall | PRESIDENT 2019, TREASURER 2018, WEBTECH CHAIR**

Jan. 2018 - Present

- Served as primary interface between the largest dorm on campus and administration
- Led Maseeh Hall in reviving various clubs and committees, resulting in a 20% improvement in retention
- Developed new system to manage allocation, distribution, reimbursements, etc. for a \$150k budget

## PROJECTS

**StreetSmarts | C++, PYTHON, SQL, MULTIPLEXING**

[lrylander.github.io/StreetSmarts](https://lrylander.github.io/StreetSmarts)

A smart street lamp system for emergency responders, leveraging real-time optimal routing, cloud-based synchronization, and voice activation. Final project for 6.08

**HackMIT/Blueprint Homepages | HTML, CSS/SASS, GULP**

[hackmit.org](https://hackmit.org), [blueprint.hackmit.org](https://blueprint.hackmit.org)

Self-taught HTML/CSS to contribute to the development of the HackMIT 2018 and Blueprint 2019 splash pages, the landing site for MIT's largest hackathon and high school learnathon/hackathon

## COURSEWORK

**Fall 2019**

6.172 Performance Engineering, 6.828 Operating Systems

**Spring 2019**

6.033 Computer Systems Engineering, 6.002 Circuits, 6.036 Machine Learning

**Fall 2018**

6.004 Computation Structures, 6.08 Intro to Embedded Systems, 6.006 Intro to Algorithms

## SKILLS

**ADVANCED**

Python, Linux

**KNOWLEDGEABLE**

HTML/CSS, TypeScript, C/C++, Git,  $\LaTeX$ , Bluespec SystemVerilog, C#, Vim

**EXPLORING**

Java, Rust, Bash, Agile Development