

# Kye Burchard

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## EDUCATION

**MIT | SB ELECTRICAL ENGINEERING AND COMPUTER SCIENCE**  
GPA: 5.0

2017 - 2021

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

2013 - 2017

## EXPERIENCE

**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
- Coordinated compliance monitoring for 6 week, 80 person experiment

**TechX | HACKMIT DEV, CORPORATE RELATIONS, & LOGISTICS**

May 2018 - Present

- Contributed to development of 2018 HackMIT splash page, sponsor portal, Blueprint 2019 splash page
- 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

**Maseeh Hall Executive Council | PRESIDENT 2019, TREASURER 2018, WEBTECH Co-CHAIR**  
Present

Jan. 2018 -

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

**Policy and Parliamentary Debate | MEMBER**

Sept. 2013 - Present

- Awarded 1st place at 3 statewide meets in 2016-17 season
- Competed in over 200 rounds, ranging in topics from renewable energy to encryption

## PROJECTS

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

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, 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

Spring 2019	Computer Systems Engineering, Circuits and Electronics, Machine Learning
Fall 2018	Computation Structures, Introduction to Algorithms
Spring 2018	Fundamentals of Programming, Intro to Interconnected Embedded Systems

## SKILLS

ADVANCED	Python, Linux
KNOWLEDGEABLE	HTML/CSS, C++, Git, L <sup>A</sup> T <sub>E</sub> X, Bluespec SystemVerilog, Vim, Pandas
EXPLORING	Java, Bash, React Native, nginx, JavaScript, Golang