

## EDUCATION

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### Massachusetts Institute of Technology (MIT)

*Candidate for Bachelor of Science in Electrical Engineering and Computer Science* • GPA: 4.8/5.0

Cambridge, MA

June 2020

### New Holstein High School

• GPA: 4.0/4.0 • Rank: 1/90

New Holstein, WI

Sep 2012 – May 2016

### Relevant Coursework

- Underactuated Robotics • Probability and Random Variables • Feedback System Design • Human 2.0 • Circuits and Electronics • Microeconomics
- Intro to Artificial Intelligence • Signals and Systems • Intro to Algorithms • Interconnected and Embedded Systems • Intro to C and C++
- Intro to Electrical and Computer Engineering • Deep Learning for Self-Driving Cars • Intro to Computational Thinking and Data Science

## EXPERIENCE

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### Subject Tracking for Autonomous Quadcopters

*Deep Learning Intern at Skydio*

Redwood City, CA

Jun 2018 – Aug 2018

- Created and evaluated convolutional recurrent neural networks for trajectory prediction using images for semantic scene understanding.

### Deep Learning and Computer Vision

*Deep Learning Intern at The Markov Corporation*

Palo Alto, CA

Jan 2018 – Feb 2018

- Worked on deep learning for stereo vision with computer vision algorithms in OpenCV and convolutional neural networks in Keras and TensorFlow.

### Autonomous Vehicle Software Development for Volvo Cars

*Summer Intern at Zenuity (Volvo / Autoliv)*

Detroit, MI

Jun 2017 – Aug 2017

- Focusing on creating computer vision algorithms for autonomous driving. Implemented computer vision testbed and created software for autonomous valet parking.

### Robotics Research at the MIT CSAIL

*Undergraduate Researcher in the Robot Locomotion Group*

Cambridge, MA

Sep 2017 – current

- Worked with NASA's humanoid robot, Valkyrie and Atlas for motion planning and fall recovery. Implemented algorithms in and out of simulation. Used Drake (<http://drake.mit.edu/>) and collaborated with Toyota Research Institute.

*Undergraduate Researcher in the Model-Based Embedded and Robotics Systems Group*

Sep 2016 – Jun 2017

- Worked on using a land rover and a quadcopter in cooperation to navigate an area and perform tasks autonomously. Also created a ROS (Robot Operating System) tool for multi-robot communication called ROS-MultiMaster-App, which is open-sourced on my GitHub account at [github.com/ethanweber](https://github.com/ethanweber).

## AREALYTICS

*Project Teammate and Software/Hardware Developer*

Cambridge, MA

Apr 2017 - current

- Created a class final project that can track wireless devices and log anonymous location analytics for retail, home, and educational use cases. We obtained startup funding from MIT Sandbox but didn't have time to continue the project.

## Hackathon Projects

*MIT - HackMIT 2017*

Sep 2017

- Created an AR travel application to virtually travel to cities in an augmented world. Won "Best Use of Amadeus APIs" and "Best Travel Hack" by Concur

*University of Michigan—Ann Arbor - MHacks 6*

Sep 2015

- Created a project to help the visually impaired through object recognition and vibration feedback. Won "Best Use of Microsoft Technology"

## LEADERSHIP

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### SpecialX

*Director*

Cambridge, MA

May 2018 – Current

- Organize VC and startup events, tech talks, and experiment with new ways to improve MIT's campus through tech

### MakeMIT

*Event Organizer*

Cambridge, MA

Sep 2016 – Jun 2018

- Organized the MakeMIT hardware hackathon with a committee to promote the maker culture of college students

## AWARDS

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- **FIRST Robotics Dean's List Finalist:** Received a prestigious award for leadership, passion, and expertise in robotics
- **Forensics Gold Medalist:** Wrote, delivered, and became a gold medalist with a 4-minute speech about cyborg technology

## SKILLS

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**Computer:** Python, TensorFlow, Keras, C++, C, Java, JavaScript, HTML, CSS, C#, Linux, Arduino, Raspberry Pi, Processing, PTC Creo CAD, SolidWorks

**Activities:** SpecialX Director, MakeMIT Committee, Robot Locomotion Group Research, Model-based Embedded and Robotic Systems (MERS) Research, Soccer, Zeta Psi Fraternity

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