

362 Memorial Drive  
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# Ethan Weber

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## EDUCATION

### 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

- 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
- Brief Intro to Python • Multivariable Calculus • Differential Equations • Physics: Classical Mechanics & Electricity and Magnetism • Microeconomics

## EXPERIENCE

### Autonomous Vehicle Software Development for Volvo Cars

Detroit, MI

*Summer Intern at Zenuity (Volvo / Autoliv)*

Jun 2017 – Aug 2017

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

### Robotics Research at the MIT CSAIL

Cambridge, MA

*Undergraduate Researcher in the Robot Locomotion Group*

Sep 2016 – current

- Developing with NASA's humanoid robot, Valkyrie, for motion planning and fall recovery. Implementing algorithms in and out of simulation. Using Drake (<http://drake.mit.edu/>) and collaborating with Toyota Research Institute to improve the code base.

*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

Cambridge, MA

*Project Teammate and Software/Hardware Developer*

Apr 2017 - current

- Created a class final project that can track wireless devices and log anonymous analytics for retail, home, and educational use cases. We are possibly continuing development outside of class with startup funding from MIT Sandbox.

### DARPA (Defense Advanced Research Projects Agency) Project

Arlington County, VA

*Project Participant*

Jul 2014

- Worked with DARPA and Booz Allen Hamilton to create an EMG (electromyography) display for the annual DARPA Family Day

### FIRST Robotics Competition

Fond du Lac, WI

*Team Captain*

Sep 2013 – Sep 2016

- Drove robot at computations and lead software and electrical aspects

### 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

### MakeMIT

Cambridge, MA

*Event Organizer*

Sep 2016 – Current

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

### National Honor Society, Student Body, and Lutheran Youth Fellowship

New Holstein, WI

*NHS President (Senior Year), Class President (Sophomore & Senior Year), and LYF President*

Sep 2012 – May 2016

## AWARDS

- **FIRST Robotics Dean's List Finalist:** Received a prestigious award for leadership, passion, and expertise in robotics
- **Math and Science Excellence Awards:** Voted top math and science student by my high school teachers
- **Forensics Gold Medalist:** Wrote, delivered, and became a gold medalist with a 4-minute speech about cyborg technology

## SKILLS

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

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

**College Acceptances:** MIT, Stanford, CMU School of Computer Science, Cornell, UW Madison, UI Urbana-Champaign