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Ethan Weber

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EDUCATION

Massachusetts Institute of Technology (MIT) — Cambridge, MA
Candidate for Bachelor of Science in Electrical Engineering and Computer Science • **GPA:** 4.8/5.0 — June 2020

New Holstein High School — New Holstein, WI
• **GPA:** 4.0/4.0 • **Rank:** 1/90 — 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

Deep Learning and Computer Vision — Palo Alto, CA
Deep Learning Engineer Intern at The Markov Corporation — 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 — 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 created software for autonomous valet parking.

Robotics Research at the MIT CSAIL — Cambridge, MA
Undergraduate Researcher in the Robot Locomotion Group — Sep 2017 – current
- Developing with NASA's humanoid robot, Valkyrie and Atlas 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.

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 location analytics for retail, home, and educational use cases. We are possibly continuing development outside of class with startup funding from MIT Sandbox.

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