Benjamin E. Ziemann

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Education

Olin College of Engineering – Robotics Engineering **Needham, MA** May 2020

- 3.90 GPA
- Relevant classwork: Data Structures and Algorithms, Foundations of Computer Science, Software Design

Eastview High School **Apple Valley, MN** June 2016

- 3.99 GPA (Unweighted)
- Recipient of Rensselaer Medal of Science and Mathematics

Experience

PaR Systems **Shoreview, MN** May 2018 – August 2018

Software Design Intern

- Worked with PLCs to automate tasks for multi-axis arms including Fanuc and Kuka brands
- Integrated a GigE-based camera for real-time 3D vision to guide robotic arms in seam detection

Embue **Worcester, MA** May 2017 – August 2017

Software Development Intern

- Developed an automatic window opener with interfacing RESTful API using Python
- Research, documented, and wrote software for Linux ARM development boards (Orange Pi)
- Set up DHCP networks for in-house use for testing of developed devices

Olin College 3D Printing Workspace **Needham, MA** December 2016 - Present

Teaching Assistant

- Taught others about and maintained the 3D Printing Workspace
- Offered consulting on CAD projects and 3D Printing

Tire Profiles LLC **Irving, TX** May 2016 – August 2016

Software and Electrical Engineering Intern

- Worked with another student to design a test bed and trade show piece for Tire Profiles' TreadSpec sensor

Activities

FIRST Robotics

Student Programming Lead, FIRST Robotics Competition (FRC) Team August 2012 – July 2016

- Managed, taught, and wrote Java code for the robot
  - (Vision tracking, autonomous motion, user control, PID control)
- Managed and maintained team website
- Three time world championship qualifier, making semi-finals in division twice

Founder, Mentor of FIRST Technical Challenge (FTC) Teams August 2014 – July 2016

- Founded the first three FTC teams at my school
- Facilitated learning of C, Java, and basic engineering principles to over 30 underclass students

Teacher for "Teens eXperiencing Technical Education" (TXT) July 2014 – July 2016

- Taught basic Java logic and graphics principles to middle-school girls

Skills

Python Java Arduino Raspberry Pi Linux 3D Printing Solidworks Basic Machine Shop Laser Cutter