ADAM ZELOOF

Mechanical Engineer

azz@cmu.edu | http://adam.zeloof.xyz | 26 Zentek Road, Stockton NJ, 08559 | Pittsburgh, PA & Stockton, NJ

EXPERIENCE

Teaching Assistant

Carnegie Mellon University (24-421: Internal Combustion Engines)

2017 – Ongoing | Pittsburgh, PA

- Assists students with labs, including engine disassembly, fuel research, and CFD combustion simulation
- Holds office hours to help students with course material
- Grades assignments and lab reports

Designer, Welder, and Fabricator

Diversatech, Inc.

2012 – Ongoing | Pennington, NJ

- Designed vacuum chamber shutter system for a clean room environment
- Developed process for laser engraving titanium and steel in full color
- Engineered efficiency improvements to manufacturing processes
- Welded, formed metal parts, and operated CNC machines, lathes, mills, and other shop tools

PROJECTS

Amateur Radio Station

Personal Project

2017 – Ongoing | Stockton, NJ

Researched, planned, and set up a 100-Watt Amateur Radio station, including a full lightning-protected grounding system.

Robobuggy

Carnegie Mellon University Robotics Club

2016 – Ongoing | Pittsburgh, PA

Designed and fabricated mechanical and electrical components of Robobuggy, a robot that races in a CMU tradition that is essentially an over-engineered, high-speed Soapbox Derby.

Flexible Robotic Manipulator

Carnegie Mellon University (24-370: Engineering Design I)

2016 | Pittsburgh, PA

Worked with a team of engineers to design and prototype a robotic gripper, which weighed less than 80 grams, capable of securely lifting a payload of over 1.3 kilograms. Won a class design award for lowest mass, beating the next lowest mass gripper by more than a factor of 2.

Babbage Difference Engine Replica

Carnegie Mellon University

2015-2016 | Pittsburgh, PA

Developed a working, scaled-down (tabletop), and laser cut replica of the Babbage Difference Engine, a mechanical computer from the 1800s.

EDUCATION

M.S. in Mechanical Engineering

Carnegie Mellon University

Sept 2017 – May 2019

B.S. in Mechanical Engineering

Carnegie Mellon University

Sept 2014 – May 2018

LEADERSHIP

President

CMU Robotics Club

2015 – Ongoing | Pittsburgh, PA

Eagle Scout

BSA Troop 194

2013 | Flemington, NJ

Leadership Skills Instructor

Boy Scouts of America- NYLT

2010-2014 | Columbia, NJ

SKILLS

Mechanical Drawing | CAD | FEA | CFD | Welding (TIG & MIG) | Soldering | Rapid Prototyping | Waterjet Operation | Photography | Graphic Design | Web Design | UNIX Server Management

SOFTWARE

Autodesk | Solidworks | PTC Creo | Simulink | EagleCAD | CorelDRAW | Adobe Creative Cloud | Git

PROGRAMMING

MATLAB | Python | CSS & HTML | LaTeX | Arduino