

Drew Deffenbaugh

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Education

University of Pittsburgh

2020 – 2024

- Swanson School of Engineering, Bachelor of Mechanical Engineering
- GPA: 3.72
- SSOE Term Honor and Dean's Honor Lists 2021; 2022; 2023
- Relevant Coursework:
 - Automatic Controls, Dynamic Systems, Micro/Nano Manufacturing, Music Engineering Laboratory

Work Experience

Robotics Engineering Co-Op

Aug – Dec '22; May – Aug '23

Sherwin Williams

- Worked closely with a team of 12 engineers developing advanced automation control systems.
- Established network communication between hundreds of devices including photo eyes, VFDs, point clouds, conveyor controllers, KUKA Robots, and more.
- Aided in RFQ, Install, Startup, IO-check, and FAT for multimillion-dollar order picking robotic systems.
- Modified KUKA Robot and PLC manufacturing system on site. Facilitated training plant personnel to operate and troubleshoot the system.

Pitt Makerspace

Jan '22 – Current

Program Committee

- Plan, run, and execute weekly public events developing skills in design, entrepreneurship, and fabrication.
- Advanced Soldering Techniques, Keyboard from Scratch, Industry Speaker Series, Molding and Casting

Mentor

- Train and guide hundreds of students on utilization of equipment (3D Printer, Laser Cutter, CNC, etc.).
- Mentored and inspired makers of all levels in an engineering-focused makerspace, fostering skill development, collaboration, and innovation.

Undergraduate Teaching Assistant

Aug '23 – Current

Statics and Mechanics of Materials

- Attend lectures and assist with in-class assignments. Hold office hours to work one-on-one with students.

Undergraduate Research Assistant

Jan '23 – Apr '23

Human Movement and Balance Laboratory

Project Experience

Binder Jet 3D Printer Educational Curriculum

Aug '23 – Current

- Work with a team of 6 on the development of a binder jet 3D printer and educational materials targeted as a tool for educators working with high school students.
- Create a functional binder jet printer, interface software, build videos, and process documentation.

Solar Powered Rover

2021

- SolidWorks, Rapid Prototyping, Leadership, Iterative Design, Laser Engraver

Balsa Wood Bridge

2021

- Research & Design, MATLAB Optimization, SolidWorks, LaTeX, Teamwork, Communication

Custom Split-flap Display

Current

Edge-lit LED Frosted Acrylic Infinity Mirror

2023

Skills

- SolidWorks, Fusion 360, Rhino (Grasshopper), AutoCAD, Rockwell PLC, KUKA Robots, WorkVisual, MATLAB, C, Office 365 (Word, Excel, etc.), LaTeX, Leadership, Teamwork, Communication
- 3D Printing, Laser Cutting/Engraving, CNC Router, CNC Plasma Cutter, Woodworking, Soldering