Drew Deffenbaugh

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Education

University of Pittsburgh   *2020 – 2024*
- Swanson School of Engineering, Bachelor of Mechanical Engineering
- GPA: 3.75
- SSOE Dean's Honor and Term Honor Lists   *2021; 2022; 2023*
- Relevant Coursework:
    - Mechatronics, Mechanical Vibrations, Automatic Controls, Engineering Simulation in Design

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 – Dec '23*
Statics and Mechanics of Materials
Mechanical Engineering & Material Science Senior Design

Undergraduate Research Assistant   *Jan '23 – Apr '23*
Human Movement and Balance Laboratory

Project Experience

Binder Jet 3D Printer Educational Curriculum   *Aug '23 – Dec '23*
- Worked as 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 demo printer, build videos, process documentation, and begin work on a fully functional printer.

Quantifying Flavor Perception in Oranges: A Procedure for Evaluating Yumminess   *Aug '23 – Dec '23*
- Develop a robust method and prototype a mathematical model for the measure of orange yumminess.
- Selected sensors, evaluated test uncertainty, utilized Arduino and physical sensors, documented testing procedure, processed measured data and completed project report and presentation.

Bluetooth Speaker Design Workshop   *Current*
Custom Split-flap Display   *Current*
Edge-lit LED Frosted Acrylic Infinity Mirror   *2023*

Skills

- 3D Printing, Laser Cutting/Engraving, CNC Router/Plasma Cutter, Soldering, PCB Design/Manufacture
- SolidWorks, Fusion 360, ANSYS, Rhino (Grasshopper), AutoCAD, Rockwell PLC, KUKA Robots, WorkVisual, MATLAB, C, Python, Office 365, LaTeX, Leadership, Teamwork, Communication