

# David Austin

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## Work Experience

### **Mechanical Engineering Co-Op at Omega Engineering | Bridgeport, NJ**

Part-time, November 2022 – Present & September 2021 – March 2022

Full-time, March - September 2021

- Co-invented and facilitated product launch of a patent pending non-invasive temperature meter for industrial processes
- Developed temperature sensing products through prototyping and testing of new mechanical designs and firmware
- Supported flexible redesign of products to meet customer and manufacturing requirements through coordination with product managers, technicians, and raw material vendors

### **Mechanical Engineering Co-Op at Cornelis Networks | Chesterbrook, PA**

Full-time, March – September 2022

- Conducted thermal and mechanical testing of subsystems for high-performance computing products
- Designed and manufactured thermal test fixtures, utilizing simulation tools
- Wrote software to automate test procedures, visualize data, and package CAD models into PLM software

### **Researcher at Theoretical & Applied Mechanics Group | Philadelphia, PA**

Part-Time, April 2019 – March 2021

- Utilized FEA process simulations and topology optimization tools for design of 3D printed parts
- Prevented manufacturing defects in industrial components through design-for-manufacturing techniques
- Developed 4D printing self-assembly technologies for customized biomedical devices

### **Mechanical Engineering Co-Op at WuXi Advanced Therapies | Philadelphia, PA**

Full-time, June – October 2020

- Created standard operating procedures and drawings for compliance with FDA manufacturing regulations
- Walked down mechanical systems to investigate and resolve alarms and malfunctions

### **Engagement Ambassador at Autodesk | Philadelphia, PA**

Part-time, September 2019 – January 2020

- Organized and taught CAD/CAM design workshops & events for groups of 30+ students
- Provided technical support and creative guidance to students using Fusion 360 CAD software

## Education

### **Drexel University | Philadelphia, PA**

**Master of Science & Bachelor of Science in Mechanical Engineering**

Cumulative GPA: 3.90 | Anticipated graduation: June 2023

Dean's List | Pennoni Honors College

## Skills

**Software:** Microsoft Office, Jira, Windchill, Cura, Photoshop

**Modeling:** SolidWorks, Inventor, Creo, AutoCAD, Fusion 360

**Programming:** Python, MATLAB, VBA, Bash, R

**Technical:** Thermal test design, hand tool operation, 3D printer maintenance, lathe & mill operation

## Achievements

Cooperative Education Award | Drexel University | 2023

Inventor | U.S. Patent Application No. 63/186388, Non-Invasive Measurement and Calculation System | Omega Engineering | 2021

STAR Scholar | Drexel University | 2019

Celebration of Engineering Design | Drexel University | 2019

Presidential Scholarship | Drexel University | 2018 – Present

Michael G. Moore Scholarship for Physics | 2018

## Activities

American Society of Mechanical Engineers | Student Chapter Executive Board | September 2018 – Present

Pi Tau Sigma Honors Society | December 2022 – Present

Drexel Engineers Without Borders | March 2019 – Present

FIRST Robotics Team 2827 | Lead Designer | October 2017 - February 2018