

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 2021–September 2022

- Co-invented and facilitated product launch of a patent pending non-invasive temperature meter for industrial processes
- Develop temperature sensing products through prototyping and testing of new mechanical designs and firmware
- Support 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 2021

- 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 in-house testing, 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

B.S. concentrations in energy & aerospace | M.S. concentrations in fluid mechanics & manufacturing

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

Inventor | U.S. Patent App. 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 E-Board Member | 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