David Austin

CONTACT

da-austin.com
davidaustin084@gmail.com
(619) 876-7116

EXPERIENCE

Product Development
Thermal/Fluids Systems
Test Procedure Development
Component Design
GD&T Analysis

EDUCATION

M.S. in Mechanical Engineering
B.S. in Mechanical Engineering
2023 | Drexel University
Pennoni Honors College
GPA: 3.91

LEADERSHIP

Drexel ASME Chapter
Executive Board
Pi Tau Sigma Honors Society
Cooperative Education Award
FIRST Robotics Team 2827
Lead Designer

MODELING

SolidWorks, Creo, Inventor,
OnShape, AutoCAD, Fusion 360
Ansys Mechanical, CFX, Fluent

CODING

Python, MATLAB, VBA, R
Unix/Linux Systems, Git

OTHER SKILLS

MS Office, Jira, Cura, Blender
Lathe & Mill Operation

WORK EXPERIENCE

Omega Engineering — **Bridgeport, NJ**
Mechanical Engineering Co-op — *March 2021 – March 2022*, *November 2022 – Present*

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

Cornelis Networks — **Chesterbrook, PA**
Mechanical Engineering Co-op — *March – September 2022*

- Conducted thermal and mechanical testing of thermal management systems for high-performance computing products
- Utilized heat transfer simulations to design thermal test fixtures
- Wrote software to automate test procedures, visualize data, and package CAD models into PLM software

Theoretical & Applied Mechanics Group — **Philadelphia, PA**
Advanced Manufacturing Researcher — *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

WuXi Advanced Therapies — **Philadelphia, PA**
Mechanical Engineering Co-op — *June – October 2020*

- Created standard operating procedures for compliance with FDA manufacturing regulations
- Redlined and updated mechanical drawings and P&IDs in AutoCAD
- Walked down mechanical systems to investigate and resolve alarms and malfunctions

PUBLISHED WORK

Parametric Analysis of the Design Point for a Centrifugal Nuclear Thermal Rocket Fuel Element
2023 | Nuclear and Emerging Technologies for Space Conference
American Nuclear Society

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