Ian K Lawton

DREXEL UNIVERSITY College of Engineering

-(Skills):

- **Software:** Fusion 360, AutoCAD, PTC Creo, SketchUp, Microsoft Office, Microsoft Project, Ultimaker Cura, PrusaSlic3r, Solidworks, AP100, Trello
- **Hardware:** FDM 3D Printer, Computer Components
- **Machining:** Bridgeport Mill, Lathe, TIG Welding, CNC Punch/Laser
- **Programming Languages:** MATLAB, Java, Python

-(Relevant Coursework):

- Engineering Design Lab I, II, III
- Thermodynamic Analysis I
- Intro to Microfabrication
- Introduction to CAD and Manufacturing
- Performance Enhancement of Dynamic Systems
- Manufacturing Processes I
- Robotics and Mechatronics
- Advanced Programming Techniques

-(Project Experience):

Heat Pipe Design, Lead Designer
Drexel University, (April 2018 - June 2018)

- Conceptualized a CAD heat pipe in Fusion 360 to be applied to a Formula 1 car's cockpit for heat dissipation
- Built the heat pipe through cutting with a bandsaw, sanding, and soldering
- Tested the heat pipe multiple times to see how well different volumes of water affected how successful it was at dissipating hear

Utility Submetering Project, Facilities Operations Co-op, Bristol Myers Squibb, (April 2019-September 2019)

- Strengthened the submetering infrastructure to encompass more specific utility readings (electricity, steam, domestic, hot, & chilled water) for billing purposes
- Created a separate server to access meter readings remotely after the existing network is shut down
- Assisted field engineers by touring them through the site so they could determine how the system shall be designed for each applicable building

Drexel University, Philadelphia, PA

Bachelor of Science
Major: Mechanical Engineering | Minor: Computer Science
Anticipated Graduation: June 2022

Cumulative GPA: 3.41

32 Martha Drive
Hamilton Township, NJ 08610
Website: https://ianklawton.com/
Phone: (609) 658-8920
Email: ikl24@drexel.edu

-(Job Experience):

Computer Components Corp., Mechanical Engineering Co-op, Philadelphia, PA
(March 2021 – September 2021)

- Developed and programmed sheet metal flats customer parts for fabrication on CNC punching and lasering machine
- Created methods of manufacturing for processing and completing assemblies and subassemblies
- Designed fixtures for drilling, welding, and assembly in Solidworks to assist production in seamless product completion
- Implemented a new procedure for Heat Affected Zone Testing when creating parts from Armor Steel
- Formulated general engineering training and HAZ testing procedure documents

Philly Fighting COVID, Research and Design Engineer, Philadelphia, PA
(May 2020 - September 2020)

- Created multiple prototypes using Fusion 360 for designing and manufacturing an affordable respirator and other related processes for combatting COVID-19
- 3D printed vacuum dies made specifically for manufacturing parts on a vacuum former
- Retrofitted vacuum former to be progressively upgraded as manufacturing processes were designed and implemented
- Machined and manipulated parts manually using a mill, lathe, ad welding setup

Bristol Myers Squibb Company, Facilities Operations Co-op, Hopewell, NJ
(March 2019 - March 2020)

- Updated site utility maps and created drawings to support site operations using AutoCAD
- Reported and analyzed energy and water usage to understand, project, and improve the campus's sustainability goals
- Learned about wastewater treatment and oversaw the development of a new phosphorus removal method to cooperate with state-issued permits
- Utilized Microsoft Project to create cohesive schedules for workstream tasks pertaining to the site closure

Staples Inc., Technology Sales Associate, Hamilton Township, NJ
(June 2016 – January 2019)

- Diagnosed and repaired PC's, smartphones, and tablets
- Assisted customers by recommending printers, computers, and other technological products that fulfilled their needs
- Assured the store was presentable through restocking and sort-blocking