Kevin O'Neill

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EDUCATION

CARNEGIE MELLON UNIVERSITY
BS in Mechanical Engineering
Expected December 2019 | Pittsburgh, PA
GPA 3.35 out of 4
Carnegie Institute of Technology

PROVIDENCE ACADEMY
HS Diploma with Honors
2012 - 2016 | Plymouth, MN
GPA 3.67 out of 4
National Honor Society Member

LINKS

github.com/kevin4913
www.linkedin.com/in/oneillkevinj

COURSEWORK

Engineering
- *24-351: Dynamics*
- *24-352: Dynamic Systems and Controls*
- *24-689: Modern Manufacturing*
- *24-262: Stress Analysis*
- *24-370: Engineering Design 1*
- *24-221: Thermodynamics I*
- *24-231: Fluid Mechanics I*
- *24-322: Heat Transfer*

Mathematics
- *24-311: Numerical Methods*
- *36-220: Engineering Statistics and Quality Control*
- *21-127: Concepts of Mathematics*
- *21-259: Calculus in Three Dimensions*
- *21-260: Differential Equations*

Computer Science
- *15-112: Fundamentals of Programming and Computer Science*
- *15-122: Principles of Imperative Computation*

SKILLS

SOFTWARE
SolidWorks • NX • PTC Creo
Fusion 360 • Python • C •
Matlab

MANUFACTURING
Laser Cutting • 3D printing •
Lathe • Mill • Drill Press •
CNC Mill

EXPERIENCE

RELATIVITY SPACE | Mechanical Engineering Intern
June 2018 – August 2018 | Los Angeles, CA
- During my time, I worked on hardware integration for Relativity's Stargate printer.
- Created mounting hardware and installed welding, grinding, and sensor equipment on the Stargate printer.
- Worked with other team members to design and get manufactured face-plates for new positioners that were purchased.

GE ADDITIVE | Engineering Intern
June 2017 – August 2017 | Cincinnati, OH
- Aided in the development of the first meter class Direct Metal Laser Melt (DMLM) system.
- Created a comprehensive document consisting of both standard operating procedures as well as safety hazards for the additive system in development. This document has become the template for future systems developed by GE Additive.
- Worked extensively with other team members on calibration and build preparation on the proof of concept machine
- Designed and manufactured a prototype for more automated powder removal from finished Elcetron Beam Melt (EBM) builds with another intern.

EXOGONIC | Co-Founder
January 2017 - Present | Minneapolis, MN
- Exogonic is a health care start-up designed to develop braces allowing for the remote monitoring of patients post surgery.
- As co-founder, I am in charge of physical design, prototyping, manufacturing, and communicating with hospitals and physical therapists

CMU MAKERSPACE | technician
January 2017 - Present | Pittsburgh, PA
- Work includes maintaining laser cutters and 3D printers within the space as well as assisting students with projects

PROJECTS

GRIPPER | 24-370 Project 2
October 2018 - November 2018
- Working with three team mates, we were tasked to create a gripper to hold onto an object during dynamic movement.
- By utilizing carbon fiber and other lightweight materials, we were able to produce a gripper that weighed 23.4 grams which was best in the class and over 17 grams ligfhter than the next gripper.

BRACKET | 24-370 Project 1
September 2018 - October 2018
- Tasked with designing a laser-cut bracket to hold 25 lb of weight for at least 10 seconds.
- Through Solidworks simulations as well as multiple prototypes, I was able to perform the task with a bracket weighing only 0.72 grams.
- With my design, I produced the lightest bracket in the class of around 120.

CRANE PROJECT | 24-262 Final Project
February 2018 - April 2018
- Along With my two teammates, we manufactured a crane to lift a 1 lb weight at least 2 inches using a servo motor
- We were able to lift our weight 4.875 inches, which was second in the class.