

Kevin O'Neill

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EDUCATION

CARNEGIE MELLON UNIVERSITY
MS IN MECHANICAL ENGINEERING
Expected Dec. 2020 | Pittsburgh, PA

CARNEGIE MELLON UNIVERSITY
BS IN MECHANICAL ENGINEERING
MINOR IN POLITICAL HISTORY
Expected Dec. 2019 | Pittsburgh, PA
GPA 3.35 out of 4

PROVIDENCE ACADEMY
HS DIPLOMA WITH HONORS
2012 - 2016 | Plymouth, MN
GPA 3.67 out of 4
National Honor Society Member

LINKS

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

COURSEWORK

Engineering

24-370: *Engineering Design 1*
24-441: *Engineering Design 2*
24-351: *Dynamics*
24-352: *Dynamic Systems and Controls*
24-689: *Modern Manufacturing*
24-262: *Stress Analysis*
24-322: *Heat Transfer*
24-231: *Fluid Mechanics I*

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

MANUFACTURING

Laser Cutting • 3D printing •
Lathe • Mill • Drill Press •
CNC Mill • Silicone Molding
• MIG welding • soldering

SOFTWARE

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

EXPERIENCE

RELATIVITY SPACE | ADDITIVE HARDWARE INTERN

June 2019 – August 2019 | Los Angeles, CA

- Designed, manufactured, and tested equipment for print quality improvement in collaboration with weld engineers, material scientists, and automation engineers.
- Utilizing FEA, designed and manufactured large scale tooling allowing for 8 foot diameter prints given weight and deflection constraints.

RELATIVITY SPACE | MECHANICAL ENGINEERING INTERN

June 2018 – August 2018 | Los Angeles, CA

- Created mounting hardware and installed welding, grinding, and sensor equipment on the printer.
- Designed and sourced large scale tooling allowing for 7 foot diameter prints.

GE ADDITIVE | ENGINEERING INTERN

June 2017 – August 2017 | Cincinnati, OH

- Created a document that detailed standard operating procedures and safety hazards for a new metal powder printer. This document is now the template for future systems developed by GE Additive.
- Collaborated 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 metal powder builds.

EXOGENIC | Co-FOUNDER

January 2017 - Present | Minneapolis, MN

- In charge of physical design, prototyping, manufacturing, and communicating with hospitals and physical therapists

DESIGN 1 | UNDERGRADUATE TEACHING ASSISTANT

August 2018 - Present | Pittsburgh, PA

- Designed and manufactured testing rig for new class project
- held office hours and recitations to assist students with course material, homework, and the class projects.

CMU MAKERSPACE | TECHNICIAN

January 2017 - Present | Pittsburgh, PA

- Maintained laser cutters, 3D printers, and machine shop and assisting students with projects.
- Utilized mills and lathes to manufacture high tolerance parts for labs on campus

PROJECTS

GRIPPER | DESIGN 1 PROJECT 2

October 2018 - November 2018

- Collaborating with three team mates, we designed and created a gripper to hold an object during dynamic movement.
- By utilizing carbon fiber and other lightweight materials, we produced a gripper with a mass of 23.4 grams which was best in the class and over 17 grams lighter than the next gripper.

BRACKET | DESIGN 1 PROJECT 1

September 2018 - October 2018

- Designed and manufactured a laser-cut bracket to hold 25 lb of weight.
- Using Solidworks simulations as well as multiple prototypes, my bracket had a mass of 0.72 grams.
- My bracket was the lightest in the class of 120 by almost 10%