

Jonathan Lee

Tel: 201-753-2192 • 19 Bedford Road, Woodcliff Lake, NJ 07677 • Email: jonlee27@seas.upenn.edu
<https://www.linkedin.com/in/jonlee27/>

EDUCATION

University of Pennsylvania | Philadelphia, PA

BSE in Mechanical Engineering and Applied Mechanics
Minors in Computer Science and Mathematics

May 2023

GPA: 4.00/4.00

- Relevant Coursework: Statics; Dynamics; Thermodynamics; Solid Mechanics; Fluid Mechanics; Intro to Mechanical Design; Machine Design and Manufacturing; Intro to Computer Programming; Programming Languages and Techniques; Data Structures and Algorithms; Practical Machine Learning Methods; Mathematical Foundations of Computer Science; Calculus II, III, IV; Linear Algebra

Bergen County Academies | Hackensack, NJ

June 2018

PROFESSIONAL EXPERIENCE

Heat Transfer Researcher

University of Pennsylvania

May 2021 – Present

- Investigated and demonstrated the feasibility of utilizing topology optimization to decide the programmed characteristics of a theoretical smart thermal material with locally adjustable thermal conductivity capabilities using steady-state thermal analysis and topology optimization tools in ANSYS Workbench

Penn Electric Racing, Formula SAE – Suspension Engineer

University of Pennsylvania

Sep 2019 – Present

- Co-founder of the suspension subteam that is currently designing and manufacturing a double wishbone suspension for a Formula SAE Electric race car
- Spearheaded load analysis of suspension components using Python for dynamic suspension model and load calculations and using ANSYS and Solidworks for FEA simulations
- Authored a 50+ page suspension subsystem “glossary” to serve as the primary source of knowledge transfer for new suspension members
- Worked in a 5-person team to design and manufacture a firewall with 50% less panels and drastically lower installation and removal times compared to the previous year

Penn Aerospace Club, SAE Aero Design – Structures Engineer

University of Pennsylvania

Sep 2019 – Feb 2021

- Designed and manufactured the front and rear landing gear system for the team’s first SAE Aero Design Regular Class RC plane using 3-D printing and precision manufacturing
- Assisted with fuselage design

Global Regulatory Services and Operations – Research Assistant

Eisai Pharmaceuticals

Aug 2017 – Jul 2019

- Member of the Global Submission Management Team that worked on several areas of regulatory affairs submission activities, including major submissions, safety reporting, and clinical study report publishing
- Created procedural guidelines for making and formatting NDAs for FDA submissions
- Provided support during database migration from Lotus Notes to psiXchange
- Analyzed submission processes to identify gaps and streamline the overall workflow

Fluid Mechanics Laboratory – Research Intern

Stevens Institute of Technology

Jul 2017 – Aug 2017

- Assisted research on biomass conversion via fast pyrolysis

REFERENCE UPON REQUEST

TECHNICAL PROFICIENCIES

Languages

- Java
- Python
- MATLAB
- OCaml

Software

- Solidworks (CAD/FEA)
- ANSYS Workbench
- ProtoTRAK
- Microsoft Office Suite

Fabrication

- Machining
 - CNC/Manual Mill
 - Lathe
 - Vertical Bandsaw
- 3-D Printing (FDM)
- Laser Cutting
- Soft Soldering
- Engineering Drawings with Tolerances (ASME)
- GD&T

LEADERSHIP

- Secretary of FFA Chapter, 2015 – 2017

SKILLS &

ACCOMPLISHMENTS

- American Invitational Mathematics Examination (AIME) qualifier, 2015 – 2018
- National Chemistry Olympiad, 2017
- World Food Prize Global Youth Institute NJ delegate, 2016

INTERESTS

- Culinary Arts
- Mechanical Keyboards
- Aquarium Keeping
- Landscape Photography