

# Michelle Lin

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## Education

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- B.S.E in Mechanical Engineering and Applied Mechanics**, University of Pennsylvania Aug. 2022 - Exp. May 2026  
**Concentration:** Mechanics of Materials, Structure, and Design
- M.S.E in Mechanical Engineering and Applied Mechanics**, University of Pennsylvania Jan. 2024 - Exp. May 2026  
**Concentration:** Design and Manufacturing

## Relevant Coursework

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Newtonian Mechanics in Engineering Applications, Electromagnetism and Radiation, Mechanical Design, Scientific Computing, Statics and Strengths of Materials, Machine Design and Manufacturing, Thermodynamics, Dynamics, Integrated Computer-Aided Design, Mechanical and Mechatronic Systems, Mechanics of Solids, Fundamentals of Materials

## Experience

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- Precision Machine Lab Assistant**, University of Pennsylvania — Philadelphia, PA Aug. 2024 - Present
- Assisting with the maintenance of machines and equipment within laboratory
  - Maintaining inventory of components and equipment used in lab courses
  - Verifying CNC operations and engineering drawings of parts to be machined
  - Assisting students with machining procedures and design development
- Scientific Computing Teaching Assistant**, University of Pennsylvania — Philadelphia, PA Aug. 2023 - Present
- Holding weekly office hours to assist students with Python and MATLAB code
  - Grading weekly in-class and take home assignments, projects, and exams to assist professor
- Mechanical Instrumentation Intern**, NAVAIR — Patuxent River, MD May. 2024 - Aug. 2024
- Wrote analyses for mechanical structures using traditional hand calculations and FEA
  - Led project to develop an interconnect box, memory loader verifier disconnect, and mounting system for MEWL boxes on AH-1Z platforms for Long Range Attack Munitions (LRAM)
  - Drafted comprehensive mechanical drawings for various projects for documentation and streamlined fabrication
  - Developed a gun bay pallet and Bay 3L installation for F-18 Super Hornets following customer requirements and location constraints
- Aircraft Instrumentation Intern**, NAVAIR — Patuxent River, MD May. 2023 - Aug. 2023
- Evaluated HEIM DAU (XMA) for ethernet acquisition and streaming
  - Tested time delays of wired vs. wireless data transmissions in network systems utilizing PTP and IEEE 1588, by emulating multiple IP addresses through Chapter 10 ethernet recordings and packet monitoring
  - Simulated flight tests using bit synchronizers, decommutators, and gateways to differentiate PCM streams from multiple IP addresses to a single access point in case of a disconnect

## Activities

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### Access Engineering, Mechanical Engineering TA

Collaborating with Penn Engineering students to develop curriculum, experiments, and lab work, with the goal of providing hands-on experience and enrichment in engineering disciplines to high school students in Philadelphia.

### A. James Clark Scholars, Student Scholar

Participating in public service learning, community service projects, and faculty research, while receiving personal mentoring, innovation training, and leadership development

## Skills

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**Fabrication:** Machining, Rapid Production

**Code:** Python, JavaScript, MATLAB, CSS, HTML, C#

**Software:** SolidWorks (CSWA Associate Certification), OnShape, Illustrator, TTCWare, WireShark, Spirent Test Center, InDesign, Photoshop, Mastercam, Creo, ANSYS