

michelle lin.

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education.

B.S.E in Mechanical Engineering and Applied Mechanics, University of Pennsylvania
Concentration: Mechanics of Materials, Structure, and Design

Aug. 2022 - Exp. May 2026

M.S.E in Mechanical Engineering and Applied Mechanics, University of Pennsylvania
Concentration: Design and Manufacturing

Jan. 2024 - Exp. May 2026

relevant coursework.

Mechanical Design, Scientific Computing, Statics and Strengths of Materials, Machine Design and Manufacturing, Integrated Computer Aided Design, Mechanical and Mechatronic Systems, Mechanics of Solids, Fundamentals of Materials

experience.

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 hardware used in lab courses
- Verifying CNC operations and engineering drawings of parts to be machined
- Assisting students with machining procedures, operations, and design development

Scientific Computing [ENGR 1050] Teaching Assistant, University of Pennsylvania - Philadelphia, PA

Aug. 2023 - Jan. 2025

- Held weekly office hours to assist students with Python and Matlab homework and coursework
- Graded 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-IZ platforms for Long Range Attack Munitions (LRAM)
- Drafted comprehensive mechanical drawings for various projects for documentation and streamlined fabrication
- Developed gun bay pallet and Bay 3L installation for F-18 Super Hornet following customer requirements and existing location/equipment constraints

Aircraft Instrumentation Intern, NAVAIR - Patuxent River, MD

May 2023 - Aug. 2023

- Evaluated HEIM Data Acquisition Unit (XMA) for ethernet capture and data streaming capabilities
- 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.

Access Engineering, Mechanical Engineering Teaching Assistant

Jan. 2023 - Present

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

Aug. 2022 - Present

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

skills.

Fabrication: Rapid Production (3D printing, lasercutting), Machining (CNC/Manual Lathes, CNC/Manual Mills, Mini-Mill)

Code: Python, MATLAB, C#, JavaScript

Software:

Modeling/Analysis: Solidworks (CSWA Associate Certification), OnShape, Blender, Creo, ANSYS

Adobe Suite: Illustrator, InDesign, Photoshop

Other: TTCWare, WireShark, Spirent Test Center, MasterCam, KeyShot