# Alexander "Alexi" Peppas

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### **EDUCATION**

# Carnegie Mellon University | Pittsburgh, PA

Bachelor of Science in Mechanical Engineering | May 2026

#### **WORK EXPERIENCE**

Shift Robotics | Austin, TX | Mechanical Engineering Intern | June-August 2025

- Lead the refurbishment and repair efforts of over 50 pairs of Moonwalkers
- Assisted with the prototyping development of the next generation of Moonwalkers

Apple Inc. | Cupertino, CA | iPad Global Supply Chain Management Intern | June-December 2024

- Performed financial, logistical, and manufacturing design analysis for small parts on multiple iPad programs
- Traveled to China for in-person negotiations and manufacturing upkeeping with stamping and CNC vendors

#### Human Engineering Research Laboratories (HERL) | Univ. Pittsburgh | Student Researcher Intern | Summer 2023

- NSF REU Program by Dr. Rory Cooper: Contributed to and conducted research on assistive technologies
- Researched and designed a racing wheelchair made out of a single sheet of folded aluminum stock for lower cost, ease of material transportation, ease of manufacturing, and ease of customization for athletic performance
- Fabricated folded aluminum stock ultralight wheelchair and tested for impact strength and fatigue

#### **PROJECTS**

## Carnegie Mellon University: Desk Organizer Project | Fall 2025

- Designed and constructed a prototype of a novel desk organizer; inspired by modular use cases and desk plants
- Designed for a specific user-case; communicated and updated with the user extensively during the development process

#### Carnegie Mellon University: Lightweight Collapsible Camping Chair Project | Spring 2024

- Designed and built a collapsible camping chair made from shock cord, PVC, 3D-printed PLA, and sewn nylon [Team of 3]

# Carnegie Mellon University: FEA Load-Bearing Crank Project | Spring 2024

- Designed and built an acrylic mass-minimized crank using Force Element Analysis made to fail at a specific load applied in torque and bending with limited support [Team of 3]

# **LEADERSHIP**

Carnegie Mellon Racing: Shop Manager | Spring 2023 - Summer 2024

- Organized and maintained industrial workshops for manufacturing and assembly of formula SAE electric car Scotch 'n' Soda Theater: Assistant Head Carpenter | Fall 2023
  - Manage the logistical and technical needs of designing and building a set for campus-wide performances

# Bridge Point Elementary School: Annual STEAM Day Instructor | 2016 - 2021

- Developed and taught lesson plan for class on catapults for elementary school STEAM Day annual event
- Designed a ballista catapult for specific launch conditions, location, and payload

# **SKILLS**

**Design:** FEA Analysis, MATLAB, SOLIDWORKS, AutoCAD, Siemens NX, PTC Creo, Python, ANSYS, Arduino **Logistical:** Microsoft Excel, Data Analysis, Financial Management, Supply Planning, Manufacturing Design Analysis **Practical:** CNC & Manual Machining, TIG Welding, Carbon Fiber Fabrication, 3D Printing, Laser Cutting

Media: Adobe Photoshop, Premier Pro, After Effects, Fresco, Procreate, Final Cut Pro

## **ACTIVITIES & HONORS**

Boy Scouts of America:

- Eagle Scout Rank, Earned August 2018
- Senior Patrol Leader, Spring 2021
- Philmont Crew Leader, June 2021