

Natalie Kaplan

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EDUCATION:

Cornell University

2027 Ithaca, NY

B.S. – Mechanical Engineering

Notable Coursework: MAE 4180: Autonomous Mobile Robots, MAE 2030: Dynamics, MAE 2250: Introduction to Mechanical Design, ENGRD 2020: Statics and Mechanics of Solids, ENGRD 2210: Thermodynamics, PHYS 2214 Physics III: Oscillations, Waves and Quantum Physics, MATH 2940: Linear Algebra for Engineers, MATH 2930: Differential Equations for Engineers, CS 2110: Object-Oriented Programming and Data Structures, MATH 1920: Multivariable Calculus for Engineers

GPA: 3.9/4.0

Syosset High School

2023 Syosset, NY

Weighted GPA: 8.5/8

SCHOOL ACTIVITIES:

Mechanical Subteam Lead | Cornell Nexus Project Team

Feb 2024-Present

- Collaborating with a team of 14 to design and assemble a solar-powered robot to maneuver over beach terrain and collect microplastics autonomously
- Working on a team of 4 to design an intake system to pick up sand and transport it to the electrostatic filter
- Using SolidWorks to sketch and design components such as a modular Archimedes screw prototype to test its effectiveness at several heights and angles
- Designed and assembled supports for the battery box

Head of New Member Education | Cornell Cybersecurity Club

Sept 2024-Feb 2025

- Led a team of 5 teaching assistants to teach cybersecurity skills to over 40 new members
- Built a curriculum and planning weekly lessons to prepare students to compete in CTFs
- Taught topics such as cryptography, forensics, web exploitation, SQL, HTML

Full Stack Software Engineer | The Wardrobe

Feb 2024-Aug 2024

- Worked on a team of 7 to maintain and streamline the club's website, which allows students to rent professional clothing
- Assisted with setting up and running the club's annual Pop Up Shop, in which hundreds of pieces of professional clothing were given away to over 350 students

Physics Undergraduate Teaching Assistant

Jan 2024-May 2024

- Worked with course instructors and graduate TAs to facilitate cooperative learning sessions
- Guided students through practice problems and reinforced physics concepts taught in lecture

Vice President | Coding and Web Design Club

2021-2023

- Created lesson plans to teach HTML, CSS, and Javascript
- Built personal websites and games, led projects for experienced members, and participated in competitions and hackathons

WORK EXPERIENCE:

Peer Advisor

Aug 2024-Nov 2024

- Guided a class of 20 first year engineering students through their transition to Cornell
- Co-planned the first-year Engineering Seminar with another peer advisor and a faculty instructor to strategically organize and facilitate the logistics of the 10-week curriculum
- Mentored, built connections with, and provided insight in solidarity with first-year students as they transitioned to the college and the Cornell community

COMMUNITY SERVICE:

Co-Director of Web and Tech Committee | Long Island Laboring Against COVID-19 (LILAC)

2020-2022

- Received a Nassau County Legislature Certificate of Recognition for helping with the organization's annual back-to-school giveaway
- Kept the organization's website and social media up to date
- Edited and produced inspiring movies for healthcare workers as a member of the Creative Works Committee
- Participated in fundraising events to give people access to PPE as a member of the Fundraising Committee

SKILLS:

CAD (SolidWorks and Fusion360), MATLAB, Lathe, Mill, Drill Press, Band Saw, Sander, 3D Printing, Java, Python, C++, HTML, CSS, Javascript, Teaching, Problem Solving, Leadership, Communication, Collaboration, Adaptability