

## EDUCATION

### Carnegie Mellon University

B.S. in Electrical & Computer Engineering and Music Technology

Pittsburgh, PA

Class of 2025

Digital Signal Processing  
Engineering & Public Policy

Electrical Power Systems  
Electroacoustics (Teaching Assistant)

Electronic Devices & Analog Circuits  
Introduction to Computer Systems

## WORK EXPERIENCE

### Hitachi Ltd., Flexware Innovation

Engineering Intern (Trailblazer Fellowship)

Fishers, IN

May 2023 - December 2023

- Facilitated automation of software build with Azure DevOps for a global pharmaceutical company.
- Collaborated with R&D team to develop a custom robotic solution for a regional medical lab on an accelerated timeline.
- Upgraded custom webpage using RazorPages and created interactive dashboard, streamlining client's compliance requests.

### Local Motors Inc

Engineering Intern

Knoxville, TN

June 2021 - July 2021

- Created comprehensive documentation and wrote standard operating procedures (SOPs) to enable process efficiency for manufacturing of last-mile 3D-printed, autonomous, electric shuttles.
- Collaborated with production, engineering, operations, and service teams to create standard operating procedures. Recognized by the CEO for initiating improvement projects resulting in approximately \$120,000 annual cost savings.

## COMMUNITY ENGAGEMENT

### CMU Transportation Club

Officer

Pittsburgh, PA

March 2023 - Present

- Connect CMU students with local and regional companies in the transportation industry through the Safety21 initiative.
- Facilitate the club's transition to a university-wide organization and forge relationships with community organizations working to improve transit equity. Build interest and enthusiasm about transit planning and policy among students.

### ECE Outreach

President

Pittsburgh, PA

August 2021 - Present

- Design and execute engineering curricula for lab-based STEM activities engaging over 100 local grade-school students per year.
- Lead recruiting efforts in conjunction with CMU's ECE department to bring college-level educational experiences to schools in the greater Pittsburgh area, strengthening connections between CMU and the community.

### FIRST Robotics Competition (FRC)

Programming and Electrical Lead

Columbus, IN and Carmel, IN

August 2016 - March 2020

- Leader of programming and electrical teams (4926 and 868); developed lasting curriculum to train new members.
- Implemented innovative algorithms, efficient code structure, and stable wiring framework leading to state championship victory.

## PROJECTS

### A Proposal for American Public Transit Electrification

Power Systems Final

December 2024

- Combined historical and global perspectives to investigate methods to improve transportation sustainability in the United States. Explored energy infrastructure changes necessary to support passenger rail electrification initiatives.

### Pathways to Care

Pfizer Software Hackathon

September 2024

- Led team to develop proof-of-concept website with the goal of helping underserved students pursue healthcare career pathways as part of the inaugural 2024 Pfizer Software Hackathon.

### A Fabric Tape Loop

CMU Textiles Lab Synthesizer Jam

July 2022

- Generated sound with fabric of various materials and patterns working with interdisciplinary team. Used concepts from textile materials science and analog circuit design to allow user interaction, with potential applications in wearable assistive devices.

### Trautonium

ECE Build 18 Hackathon

January 2022

- Designed, built, and presented a functional analog electronic instrument, based on a Trautonium, using fundamental concepts of analog circuit design and audio engineering with the goal of furthering the work of pioneering electronic musicians.

### attune.

Fundamentals of Programming & CS Term Project

December 2020

- Music player app which provides listening data for both streamed and local music, filling a gap present in consumer audio. Written in Python, using XML, PyGame, Tkinter graphics, and PyAudio libraries, along with API interactions.