

Berwin Lan [BERWINL.COM](https://berwinl.com)

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EDUCATION

Olin College of Engineering, Needham MA

B.S. Engineering with Computing MAY 2024, **GPA: 4.0**

- Recipient of 50%, \$110K merit-based Olin Tuition Scholarship; MA Space Grant research funding (Spring 2021); Clare Boothe Luce scholarship
- **Relevant Coursework:** Data Structures and Algorithms; Software Design; Principles of Integrated Engineering; Modeling and Simulation; Quantitative Engineering Analysis 1, 2, and 3; Products and Markets

SKILLS

Languages: Python, Swift, MATLAB, Java, C++ for Arduino

Programs: CAD (SolidWorks, Fusion, Onshape), Git

Soft Skills: communication, leadership, conflict resolution, design thinking, teamwork

WORK EXPERIENCE

Olin College Crowdsourcing and Machine Learning Lab — *Student Researcher* JUN 2021 - PRESENT

- Build *Clew Maps* using **Swift** (see Projects), conducting **user interviews** with 25+ codesigners
- Collect, analyze, and visualize user and survey data with **Python** (pandas, Matplotlib)

Olin Satellite + Spectrum Technology & Policy Group — *Student Researcher* FALL 2020 - SPRING 2021

- Used **SolidWorks** to design structural components of a six-university CubeSat to meet mission requirements
- **Publication:** "Coordinating Development of the SWARM-EX CubeSat Swarm Across Multiple Institutions," Small Satellite Conference 2021, August 2021.
- **Publication:** "3U CubeSat Structure Design and Analysis for SWARM-EX Low Earth Orbit Mission," 18th Annual CubeSat Developers Workshop, 27-29 April 2021.

Olin College Modeling and Simulation Class — *Course Assistant* FALL 2021

- Teach students skills in **MATLAB** during office hours and provide one-on-one in-class support

California Institute of Technology Minnich Group — *Research Intern* SUMMER 2019

- Analyzed and validated large data sets using **Python** (NumPy, pandas, Bokeh)
- Created and presented literature reviews and summaries for the graduate research group

PROJECTS

Clew Maps — *Olin College Crowdsourcing and Machine Learning Lab* SUMMER 2021 - PRESENT

- *Clew Maps* is an app that helps the blind and visually impaired navigate unfamiliar indoor spaces independently
- Use **Swift** (SwiftUI, ARKit, UIKit) to implement novel route localization and cloud sharing features

Search Engine — *Data Structures and Algorithms* FALL 2021

- Build a search engine in **Python** using data structures on **Redis**

Reddit Sentiment Analysis — *Software Design* SPRING 2021

- Scraped Reddit posts, performing and visualizing sentiment analysis with **Python** (pandas, Reddit API)

Boba Blast! Game — *Software Design* SPRING 2021

- Built an interactive action game in **Python** using Pygame and the Model-View-Controller framework

Olin Gear Test Storefront — *Products & Markets* SPRING 2021

- Identify and solve an open-ended problem in a team of 5 for Olin's foundational entrepreneurship course
- In a 5-day sprint, sell 293 items to 237 supporters with \$1,207 in profit, conducting user and market research

LEADERSHIP EXPERIENCE

Project Manager — *Olin Rocketry* SEP 2020 - PRESENT

- Manage a team of 30+ members and budget of \$13K, overseeing 5 subteams and multiple R&D projects
- Shorten the development cycle from 3 years to 9 months, holding 3 external reviews annually

FlatSat Development Lead — *Olin Satellite + Spectrum Technology & Policy Group* SPRING 2021

- Direct a team of 5 undergraduate and graduate students across multiple universities in FlatSat development as the project manager, creating a calendar, delegating tasks, and organizing virtual meetings