

DANIEL TAO

3465 Sansom St, Philadelphia, PA 19104 | (224) 358 5571

danieltaox@gmail.com | danxtao.com | github.com/sigmachirality | <https://devpost.com/SigmaChirality>

EDUCATION

University of Pennsylvania, School of Engineering & Applied Science, Philadelphia, PA

Candidate for Bachelor of Science in Engineering

Expected May 2022

Expected Major: Networked and Social Systems Engineering (NETS)

Completed Coursework: Mathematical Foundations of Computer Science; Computer Science Through Program Design; Linear Algebra and Differential Equations; Introduction to Haskell; Data Structures and Algorithms; Crowdsourcing and Human Computation; Network and Market Theory

College of Lake County, Grayslake, IL

Ended August 2018

Dual Enrolled while in HS

Relevant Coursework: Programming in C++

Adlai E Stevenson High School, Lincolnshire, IL

May 2018

Graduate, Gold Honor Roll, Ambassador Award Recipient

TECHNICAL EXPERIENCE

Software Engineering Intern, *Volley*

Summer 2019

- Will build proprietary graph theory based Alexa skill testing software solution for YCombinator startup using Javascript

Fullstack Web Developer, *Knout*

March 2019 - Present

- Built frontend user authentication and document syncing features in React, integrating with an AWS Cognito user pool
- Implemented Google Analytics tracking in React web app and React Native mobile app to allow analysis of user behavior
- Greatly refactored codebase to implement walkthrough and authentication pages, and allow implementation of more pages in the future
- Worked with React, React Native, Javascript, AWS

Software Engineering Intern, *Encompass Human Capital LLC*

June 2018 - August 2018

- Expanded digital completion of state tax withholding certificates in payroll software to all 50 US states
- Architected new modular system for handling states, enabling the completion of a 3 month project within a week
- Maintained and modified code and database schema to store data fields requested by clients
- Solved/implemented several dozen issues/features, from front-end UI functionality to back-end garbage collection
- Worked with C#/ASP.net, Kendo/MVC, HTML/CSS/jQuery, and MySQL

ACTIVITIES

Fullstack Developer, *Penn Labs, University of Pennsylvania*

Spring 2019 - Present

- Designed and implemented a fullstack comment reviewer web app, as well as comment functionality on Penn Course Review itself
- Refactored and created components for complete rewrite of Penn Course Review frontend in React
- Maintained, debugged, and created new routes for Django backend for Penn Course Review, which is used by thousands of students
- Refactored API routes to serve data with a few SQL queries rather than thousands, reducing page load times drastically

Software Engineer, *Penn Electric Racing, University of Pennsylvania*

Fall 2018 - Spring 2019

- Wrote and debugged code for custom PCBs and Desktop to track speed, temperature, tilt, and other parameters in C# and C++
- Redesigned PER's proprietary serial protocol, reducing wasted bytes, allowing tracking of up to 3x more raw data than before

Team Co-Captain, Science Olympiad, *Adlai E Stevenson High School*

2014 - 2018

- Organized weekly meetings, in-house tryout competition, and setup of stand at co-curricular fair
- Wrote and graded Astronomy test for in-house competition, then used results to help selection of new team members
- Trained new team members in fields of expertise such as Remote Sensing and Astronomy
- Led team to place at nationals, personally placed nationally in events involving Astronomy, Game Dev, and Remote Sensing

Director of Membership, Model United Nations, *Adlai E Stevenson High School*

2015 - 2018

- Introduced new web-based attendance tracking, greatly reducing time wasted at meetings for checking attendance
- Kept records of member attendance and behavior to use when selecting members to go to specific MUN conferences

Co-president/Co-founder, Patriot Gaming Esports, *Adlai E Stevenson High School*

2017 - 2018

- Created and led esports club with teams competing in multiple HSEL tournaments, some of which placed nationally
- Led other club members in organizing in-school tournaments for video games such as Hearthstone and League of Legends

PROJECTS

Developer, *LectureHub (YHacks 2018 Wix Code Prize 2nd Place)*

- Built REST API for a college note sharing web application using Python Flask framework and AWS Buckets
- Worked with a team of three other developers to integrate backend with JS frontend and Swift mobile app in under 36 hours

Mentee, TeaBot (*HKN Best Mentor-Mentee Team*)

- Developed CV solution using a depth camera to allow tea picking robot to interact with its environment and identify tea buds
- Ported existing Matlab kinematics code into Python and integrated kinematics and CV code together
- Worked with OpenCV, Matlab, Python, C++

TECHNICAL SKILLS

Java, Python, Javascript, C#, C++, Haskell, Go, OCaml, Django, Flask, React, Git, HTML/CSS/SASS, JS/Jquery, Kendo