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
Current Coursework: Data Structures and Algorithms; Linear Algebra Honors; Statistical Computing in R; Crowdsourcing and Human Computation

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, *Encompass Human Capital LLC* — Summer 2018, Winter 2018
References available upon request

- 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

Backend Developer, Penn Labs, *University of Pennsylvania* — Spring 2019 - Present

- 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 - Present

- 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 data than before

Software Member, Penn Aerial Robotics, *University of Pennsylvania* — Fall 2018 - Present

- Contributed to codebase for competitive flying robots which compete in several national competitions
- Built voice recognition system to command competition drones to perform various tasks in Python

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

Developer, MoodTunes (*BigRedHacks 2018*)

- Led a team to build web application which uses facial recognition to recommend music based on the user's mood in 36 hours
- Built application backend using Python Flask, integrating with Microsoft Azure and Spotify's Developer API
- Delegated tasks to other team members based on appropriate skill and needs of the project

TECHNICAL SKILLS

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