

DANIEL TAO

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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)

GPA: N/A

Current Coursework: Mathematical Foundations of Computer Science; Computer Science Through Program Design;

Linear Algebra and Differential Equations

College of Lake County, Grayslake, IL

Ended August 2018

Dual Enrolled while in HS

GPA: 4.00/4.00

Relevant Coursework: Programming in C++

Adlai E Stevenson High School, Lincolnshire, IL

May 2018

Graduate, Gold Honor Roll, Ambassador Award Recipient

GPA: 4.63/4.00

TECHNICAL EXPERIENCE

Software Engineering Intern, *Encompass Human Capital LLC*

Summer 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
- Communicated directly with clients to implement features that best fit their needs
- Worked with C#/ASP.net, Kendo/MVC, HTML/CSS/jQuery, and MySQL

ACTIVITIES

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

2018 - Present

- Wrote code for custom PCBs to track speed, temperature, tilt, and other parameters of interest in C# and C++
- Redesigned communication protocols between PCBs to transfer more information in less bytes, increasing tracking efficiency

Software Member, Penn Aerial Robotics, *University of Pennsylvania*

2018 - Present

- Contributed to codebase for competitive flying robots which compete in several national competitions, worked with 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

Contributor, Osu!, *PPY Developments PTY*

- Contributed commits to the development of an open-source rhythm game with over 9 billion registered users
- Worked with custom, open-source graphics/game development framework developed in C# specifically for Osu!

Lead Developer, Ritmo

- Created and designed a rhythm game, then led a team of 3 to develop the game in Java, managed the codebase repository
- Reverse-engineered and implemented osu beatmap parsing system, allowing Ritmo to play beatmaps made for Osu! Mania
- Introduced double-buffering algorithm to allow game to display a persistent image for a smoother gameplay experience

TECHNICAL SKILLS

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