Ingrid Hsu

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EDUCATION

Swarthmore College | Swarthmore, PA   *Expected Graduation*: May 2028
Candidate for B.A. in Computer Science and Philosophy
- *Relevant Coursework*: Data Structures and Algorithms, Competitive Programming, Linear Algebra with Theory, Logic, The World of Particles and Waves, Democracy and Technology

Milton Academy | Milton, MA   June 2024
- High School Diploma; *Cumulative GPA*: 4.0/4.0; *SAT Score*: 1580/1600 composite (800 Math, 780 Reading/Writing)
- *Relevant Coursework*: Advanced Topics in AI, Advanced CS: AI and ML, Multivariable Calculus, Calculus (Accelerated)
- *Advanced Placement Exams*: Calculus BC (5), CS A (5), Psychology (5), English Language and Composition (4)

SKILLS & AWARDS

- *Programming Languages and Data Analysis:* Proficient in Python, Java, C++; Familiar with Javascript, HTML, C#.
- *Awards*: NCWIT Award for Aspirations in Computing, National Merit Finalist, AP Scholar with Honor Award
- *Languages*: English (native), Mandarin Chinese (fluent)

RELEVANT EXPERIENCE

Swarthmore Lang Center of Civic and Social Responsibility | Chester, PA   September 2024 – Present
Dare 2 Soar Literacy Tutor
- Instruct and develop curriculum for one-on-one math tutoring with 8th grade student of Chester Children's Chorus

Swarthmore College Computer Society | Swarthmore, PA   September 2024 – Present
Member of 3D Campus Map Project Team
- Developing 3D map of Swarthmore campus to locate classrooms, water fountains, bathrooms, etc. with 8-member team from-the-ground-up. Using C#, Unity, Blender, and 3D Modeling skills.

The Greater Boston STEM Program | Boston, MA   March 2022 – Present
CS Director ('23-Present), CS Curriculum Developer ('23), Python II/Python I/Scratch Instructor ('22-'24)
- Educated 30+ K-8 students computer programming fundamentals in various languages including Scratch, Python, and Java through 6 classes over the course of 5 semesters at a non-profit organization with over 1000 students.
- Organized communication, led meetings, and applied feedback from students, parents, and instructors with teams of 50+ computer science instructors, curriculum developers, and organization presidents.

George Mason University Virginia Serious Games Institute | Fairfax, VA   June – August 2023
Research Intern
- Researched game design for ethical and social responsibility by product testing, case studies, and literature review.
- Published paper on gamification to aid recovery from addiction in GMU's Journal of Student-Scientists' Research.

TECHNICAL PROJECTS

ASCIImation | C++, *Linked Lists*   GitHub
- Implemented and tested linked list data structure in C++ to play ASCII art animation with text, leading to further understanding of complexity requirements, reading .asciimation formatted files, and STL pair classes.

EEG Emotion Classification | Python, *MLP & Neural Net*   GitHub
- Built Multi-Layer Perceptron and Feedforward Neural Network to classify electroencephalogram signals into positive, neutral, or negative emotional states, achieving accuracies of 94% and 98% respectively when tested on the EEG Brainwave Dataset: Feeling Emotions from Kaggle. Explored possible applications in autism communication support.

LEADERSHIP & ADDITIONAL EXPERIENCE

The Petey Greene Program, *Student Volunteer* | Swarthmore, PA   September 2024–Present
- Tutored math to incarcerated people in the State Correctional Institute at Chester for GED and reentry preparation.

Girls Who Code Club Milton Academy Sector, *Co-Head* | Milton, MA   November 2020–June 2024
- Organized resources and led weekly meetings to boost community, alumni speakers to share professional experiences, and hackathons to develop technical skills for 20+ members of girls in Milton's CS community.

Hebrew Senior Life, *Student Volunteer* | Milton, MA   October 2021–November 2023
- Instructed 15+ senior citizens at local elderly homes with technology, including iPad set up, printing, and email login.