# Sheryl Hsu

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## Education

**Stanford University | Stanford, CA | 2022 - Present**

- Bachelors of Science in Computer Science, AI track, 3.99 GPA, expected graduation Spring 2025
- Courses: CS107 (Systems), CS224N (NLP), CS229 (Machine Learning), CS231N (Computer Vision)
- Clubs: Women in Computer Science Board Member, Stanford Robotics Club

**Valley Christian High School | San Jose, CA | 2018 - 2022**

- Valedictorian, National Merit Finalist, 16 AP classes taken

## Skills

- **Languages**: Java, Python, c++, c, JavaScript, CSS, HTML
- **Frameworks**: React, SwiftUI, Django, Node, Pytorch
- **Research:** technical writing, data analysis
- **Other:** Git, Excel, data structures & algorithms

## Experience

**SWE Intern | Two Sigma | June - Aug 2023**

- Develop standalone data analysis tool to enable modelers to compare proprietary datasets
- Tool allows users to browse, search, and filter data, compute statistics, and generate a selection of plots

**Researcher | Stanford Empirical Security Research Group | Apr 2022 - June 2023**

- Analyze the contents of the Chrome Web Store (over 100,000 extensions)
- Develop multithreaded crawler using Python to scrape metadata and source code from Chrome Web Store sites
- Discovered over 9,000 extensions with identical source code and many unmaintained extensions
- Authored paper “What is in the Chrome Web Store?,” presented at SecWeb 2023

**Intern | Math Happens Foundation | Feb - Sep 2022**

- Created museum exhibit to teach visitors about Kruskal's minimal spanning tree algorithm
- Wrote React GUI and Django backend to display instructions and feedback to user
- Used OpenCV to create computer vision algorithm that recognizes spanning trees the user builds
- Visited by over 300 people at Almaden Quicksilver Mining Museum’s Play Like a Minor event

**Researcher | MIT PRIMES-USA | Jan 2021 - Feb 2022**

- Created algorithm for the Steiner tree problem based on cellular automata model of *Physarum*
- Programmed algorithm in Java, ran trials using AWS Batch and Docker, analyzed data in Python
- First author of papers “Cell fusion through slime mold network dynamics” in J R Soc *Interface*, April 2022 and “A Physarum-inspired approach to the Euclidean Steiner tree problem” in *Sci. Rep.*, Aug 2022

## Projects

**DMS: Domain-Specific Model Selection | Mar 2023 - Present**

- Build system that utilizes fine-tuned models by training BERT to feed prompt into different fine-tuned models

**Condensis | Feb 2023**

- Create machine learning pipeline to take lecture videos and convert into lecture notes using GPT3

**Elicks | Jan - Sep 2022**

- Designed, developed, and maintain elicks, an iOS app that helps musicians organize licks and exercises
- Over 6000 downloads on Apple App Store, built website using React (https://elicksapp.com)

## Awards

- **Programming:** USACO Gold, 3x AIME Qualifier, TreeHacks 2023 NLP Prize Winner, UChicago Trading Prize Winner
- **Research:** Science Talent Search Scholar, ISEF(International Science and Engineering Fair) Special Award
- **Leadership and community service:** Coca Cola Scholars Regional Finalist (top 300), Atlas Finalist