

EMILY ZHANG

AI/ML, FULL-STACK, DESIGN

✉ emily49@stanford.edu

☎ 970-999-2198

in [emilyszhang](#)

🐙 [49emily](#)

EDUCATION

Stanford University | 2022 - 2025

B.S. in Computer Science (AI Track) & Minor in [Art Practice](#)

GPA: 4.110/4.00

- Relevant coursework: Machine Learning (CS 229), Design & Analysis of Algorithms (CS 161), Probability for CS (CS 109), Blockchain Foundations (EE 374), [Modern Mathematics: Discrete Methods](#) (MATH 61DM), Real & Complex Analysis

SAT: 1600 | AMC 12: 118.5

SKILLS + HONORS

Proficient: Python, React.js, JavaScript, TypeScript, HTML/CSS, Java, Golang, Figma, Unity

Familiar: C++, SQL, Node.js, Express, Vue.js, Mongoose

- MIT Math Prize for Girls, AIME, & USACO Gold Qualifier
- Regeneron ISEF Finalist & Special Award Winner
- 4x National Scholastic Art Medalist; Exhibited at the U.S. Capitol, Parsons School, Carnegie Hall
- UChicago Trading Competition 2nd Place, Options Trading

WORK EXPERIENCE

Stanford Virtual Human Interaction Lab | Incoming VR Researcher (Fall 2023)

Stanford, CA

Glean | Software Engineer Intern (Jun. 2023 - Sept. 2023)

Palo Alto, CA

Product Engineering Team - Knowledge & Growth Features

- Improved user authentication flow with React Redux and browser cookies, implemented syntax highlighting and table functionality in the WYSIWIG editor with Quill.js + Markdown, shipped autocomplete in the browser omnibox for 90,000+ users of the Glean extension, and made critical REST API changes in Golang for new UGC features and Glean Chat
- Built a full-stack deployment-wide config project allowing key clients (Nvidia, Plaid, \$1M ARR total) to migrate 200,000+ URLs onto Glean's link management system, owned end-to-end from engineering design to final feature launch

Medelooop.ai | Database Engineer Intern (Mar. 2023 - Jun. 2023)

Palo Alto, CA

- Implemented a graph database system for rare disease research on medical data of 1000+ patients with interoperability between OMOP CDM, SNOMED, ICD-10, etc. using AWS Neptune/Neo4j and Cypher
- Researched ML models for graph DB query optimization resulting in 1.7x query speedup on synthetic medical records

Stanford Carta | Software Engineer (Dec. 2022 - Jun. 2023)

Stanford, CA

- Built frontend overhaul of [Carta](#), Stanford's student-run course discovery and planning site used by 95% of undergrads
- Engineered a custom React/TypeScript component library and design system (using Storybook, styled-components, Radix UI, and Tanstack Router) and implemented API endpoints with Tanstack Query and Swagger for backend scalability

AquaRealTime | Software Development Intern (Jul. 2022 - Sep. 2022)

Boulder, CO

- Designed and built feature in Vue.js for 200+ algae tracker clients to log custom weather and treatment events
- Built predictive analytics for harmful blooms on the backend with principal component and multivariate regression

Machine Learning Researcher (Jul. 2020 - May 2021)

Paper: ["Fusing LiDAR and Camera Data for Advanced Context Recognition in Autonomous Navigation Sensory Systems"](#)

- Created novel LiDAR/Camera sensor fusion system in Python and Tensorflow using VoxelNet and visual-CNN architectures for more robust object detection and classification of street objects on the KITTI autonomous driving dataset
- Achieved an accuracy of 93.60 and AP of 93.62, significantly outperforming previous metrics, and won \$7k at ISEF

PROJECTS

[Rabbithole](#) | **Technical Co-Founder & CPO**

Ideated and engineered a Gen AI SaaS product for homeschooling parents from 0 to 1 with Python + React. Currently beta testing.

Multimodal Hate Speech Classification | CS 229

Trained a Multimodal Bitransformer with BERT + CLIP to achieve a 0.758 AUC on Meta's Hateful Memes Dataset. ([Paper](#) | [Poster](#))

Marabu Proof-of-Work Blockchain | EE 374

Built a PoW UTXO protocol in TypeScript with TCP/IP, complete with block validation, mining, mempools, and gossiping. ([Github repo](#))

LEADERSHIP

2023-24 ASES VC3 Co-Director

Interviewing Stanford startups, contacting investors, and bringing them together for VC3, ASES'S annual startup "speed-dating" event.

2021 Ross Math Program Jr. Counselor

Invited as a JC after [attending Ross 2020](#). Taught number theory, graded p-sets, lectured on integer partitions, and led problem seminars.