Emily Zhang

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EDUCATION

STANFORD UNIVERSITY
B.S., Computer Science (AI Track)
Minor, Mathematics
Minor, Art Practice
2022 - 2026 | GPA: 4.113 / 4.0

COURSEWORK

GRADUATE
CS229: Machine Learning
EE374: Blockchain Foundations
CS231n: Deep Learning for Computer Vision
CS224n: NLP with Deep Learning

UNDERGRADUATE
CS161: Algorithms
CS109: Probability
CS106B: Programming Abstractions
CS107: Computer Organization/Systems
CS154: Theory of Computation
CS148: Computer Graphics
MATH61DM: Modern Mathematics
Real & Complex Analysis

SKILLS

Proficient:
JavaScript • TypeScript • Python • Java • React.js • Node.js • Mongoose • HTML/CSS • Figma • LaTeX
Familiar:
C • C++ • Golang • SQL • Vue.js • Unity • Blender

AWARDS

CS & MATH
• 2024 Pear Garage Fellow
• Pear VC's "Most Likely to Get Funded" Award at Treehacks 2024
• 2023 Neo Scholar Finalist
• UChicago Trading Competition 2nd Place, Options Trading
• MIT Math Prize for Girls, AIME, & USACO Gold Qualifier
• Regeneron ISEF Finalist & Special Award Winner ($7k total)

ART
• 4x National Scholastic Art Medalist
• Exhibited at the U.S. Capitol, Parsons School, Carnegie Hall

EXPERIENCE

APPLE | AI/ML Intern
Jun 2024 - Present | Seattle, WA
Machine Learning Platform & Infrastructure

SCALE AI | Software Engineering Intern
Jan 2024 – Mar 2024 | San Francisco, CA
Computer Vision Data Engine – 2D Team

- Built a new task pipeline prediction stage and corresponding step functions with updated Mongo schemas, more modularity, and future extendability.
- Engineered and owned integration of Scale's ML development with Nucleus datasets. Automated dataset creation and ingestion from Mongo and Snowflake for live model monitoring. Demoed at Product Review for the entire business unit.
- Deployed endpoint for Segment Anything's image embedding calculation and implemented the first in-browser model at Scale, a quantized SAM decoder ONNX model for AutoAnnotate tools that improves speed 3-5x and reduces GPU costs by 50% ($50k annual).

GLEAN | Software Engineering Intern
Jun 2023 – Sep 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 WYSYWIG editor with Quill.js + Markdown
- Shipped autocomplete in the browser omnibox for 90,000+ extension users
- Made 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.

MEDELOOP.AI | Database/ML Engineering Intern
Mar 2023 - Jun 2023 | Palo Alto, CA

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

PROJECTS

RABBITHOLE | Technical Co-Founder & CPO
Ideated and engineered a Gen AI SaaS product for homeschooling parents from 0 to 1 with Python + React. Awarded $10k VELA Grant.

STYLESCAPE: STYLIZED AND DEPTH-CONSISTENT 3D SCENE GENERATION | CS 231n
Few-shot, infinite walkthrough generation from films using trained diffusion, ControlNet, depth estimation, and mesh projection. (Paper | Github | Page)

SHARD: DISTRIBUTED MODEL TRAINING | Treehacks 2024
Proof-of-concept for an infinitely scalable distributed system using consumer hardware to train and run ML models. (Demo)

MARABU PROOF-OF-WORK UTXO BLOCKCHAIN | EE 374
Built a complete blockchain protocol in TypeScript with TCP/IP. (Github)