# **Emily Zhang**

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# **EDUCATION**

**Stanford University** 

Stanford, CA

B.S. in Computer Science (AI Concentration) & B.A. in Art Practice

Class of 2026

• Relevant Coursework: Programming Abstractions, Computer Organization & Systems, Blockchain Foundations, Modern Mathematics: Discrete Methods, Linear Algebra, Real & Complex Analysis, Design Sketching

**Cherry Creek High School** 

Greenwood Village, CO

GPA Weighted: 4.8 | Unweighted: 4.0 | SAT: 1600 | AMC 12: 118.5

Aug. 2018 – May 2022

• Relevant Coursework: AP Computer Science A (5), AP Calculus BC (5), AP Drawing (5), Data Structures & Algorithms, iOS App Development, Calculus 3/Differential Equations

# RELEVANT EXPERIENCE

**AquaRealTime**, Algae-Tracking Environmental Technology Startup Software Development Intern

Boulder, CO

Jul. 2022 – Sep. 2022

- Developed graph annotation feature in Vue.js for algae tracker users to log, view, and track weather and treatment events against phycocyanin and chlorophyll-a values
- Built an ML algorithm with principal component regression and multivariate regression that predicts effects of buoy temperature, water temperature, and light on PC/CA levels, allowing more accurate algae detection

Regeneron International Science & Engineering Fair (ISEF)

Jul. 2020 – May 2021

Machine Learning Researcher

Project Title: "Fusing LiDAR and Camera Data for Advanced Context Recognition in Autonomous Navigation Sensory Systems through Multidimensional Deep Neural Network Architectures"

- Created novel Python LiDAR/Camera sensor fusion system that uses VoxelNet and visual-CNN in performing more robust object detection and classification of street objects on KITTI autonomous driving dataset
- The architecture reached average precision of 93.62, significantly outperforming previous metrics
- Wrote final research paper in LaTeX, presented paper and fair board at Colorado SEF and Regeneron ISEF

#### LEADERSHIP EXPERIENCE

**Stanford ASES,** Stanford's Global Entrepreneurship Society Bootcamp Fellow

Stanford, CA

Sep. 2022 – Current

- Selected as 1 of 40 Fellows out of 200+ Stanford students for ASES Bootcamp
- Attending entrepreneurship workshops and speaker series with VCs and founders to develop a minimally viable product and startup pitch with a team of other Bootcamp members

Ross Mathematics Program, Proof-based Summer Math Camp

Columbus, OH

Junior Counselor

Jun. 2021 – Aug. 2021

- Attended 2020 Ross Math Program and returned as a Junior Counselor for summer 2021
- Taught first-year students number theory, graded problem sets, lectured on integer partitions, and led problem seminars, attended advanced classes in geometric group theory

# **AWARDS & ACCOLADES**

- MIT Math Prize for Girls & AIME Qualifier
- Regeneron ISEF Finalist & Special Award Winner
- 2022 Congressional Art Competition Winner, Winning Piece at U.S. Capitol until July 2023
- USA Computing Olympiad Gold Qualifier
- 4x National Scholastic Art Medalist; Exhibited at Denver Art Museum, Parsons School, Carnegie Hall (Art Portfolio)

### **SKILLS**

**Software:** Jupyter, VSCode, Overleaf, Google Colab, Xcode, Eclipse, Excel, Procreate, Adobe Illustrator, Figma **Coding Languages & Frameworks:** Java, Python, C++, JavaScript, HTML/CSS, Vue.js, React, LaTeX **Natural Languages:** Mandarin Chinese (Bilingual proficiency)