

# Ryan Fu

2024-2025 USA Computing Olympiad (USACO) Finalist

🏠 Pleasanton, CA

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## EDUCATION

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- **Amador Valley High School** 2022-2026 (expected)
  - GPA: 4.0(uw), 4.58(w) | SAT: 1570 | ACT: 36 | PSAT: 1520 (National Merit Scholarship Semifinalist)

## RESEARCH

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- **Studying Systematic Bias in Large Language Models for Personalized Recommendations** Sept 2024 - Present
  - Supervised by Professor [Zhe Zhao](#) from CS Dept of UC Davis, former Google Deepmind research scientist.
  - Fine-tuned open-source LLMs (Llama, Gemma, and Qwen) and trained MLP baselines for recommendation/rating tasks using [MovieLens](#) and [Amazon Review](#) data sets.
  - Evaluated prediction performance across LLM and MLP models using RMSE and mean rating correlation.
  - Discovered systematic bias in LLM predictions and developed semantic strategies to mitigate it.

## INTERNSHIPS

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- **Zeitro, an AI powered online mortgage platform company ([Link](#))** June - Sept 2024
  - Supervised by [Andrew Zhang](#), solution engineering manager.
  - Designed and implemented a python-based automated unit-testing framework for Zeitro's communication APIs, enabling early detection and rapid resolution of potential platform failures.
  - Developed a data-driven customer engagement analytics dashboard, providing leadership with actionable insights that improved lead-to-loan conversion rates.
- **Zanskar, an AI/ML company for geothermal exploration ([Link](#))** June - Sept 2023
  - Supervised by [Dr. Ahinoam Pollack](#), head of research.
  - Built a heatmap digitizer tool to efficiently extract quantitative data from academic research papers.
  - Open-sourced the [codebase](#) and contributed it to the Awesome Open Geoscience community ([Link](#)).

## VOLUNTEERING

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- **Competitive Programming Initiative (CPI) ([Link](#))** Jan 2023 - Present

*Largest competitive programming nonprofit in the US, serving 116K+ registered users from 20+ countries.*

  - Holding leadership roles concurrently as Director of Workshops and Director of Classes.
  - Hosted workshops (e.g., USA IOI team panels, USACO problem-setting, contest reviews) engaging 1,000+ students.
  - Taught silver class for four seasons, instructing 500+ students.
  - Redesigned Silver curriculum to align with evolving USACO Silver-level algorithm trends.
  - Authored advanced data structure editorials and contributed to the [USACO Guide](#), a free collection of curated, high-quality resources affiliated with CPI and maintained by USACO finalists.
- **Pleasanton Math Circle (PMC) ([Link](#))** Sept 2022 - Present

*A local math community located in the Tri-Valley, Northern California.*

  - Organizing biweekly open seminars on recreational mathematics for local elementary and middle school students.
  - Wrote handouts and lectured at Harvest Park Middle School for 200+ students.
  - Coached the Harvest Park MathCounts team every Tuesday after school.
- **Global Leadership Initiatives for Youth (GLIFY) ([Link](#))** Aug 2022 - Present

*Student-led nonprofit in Northern California with 500+ members delivering diverse community services.*

  - Served as Web Manager (2023) and Technology VP (2024 to present); led full website redesign with modernized UI and distributed management system.
  - Founded debate and coding summer camps, coaching 60+ middle school students for three years.
  - Volunteered in projects including the African Library Project, Creek Clean-up, Fertile Groundworks, Reutlinger Performance for seniors, Kids Against Hunger, etc.

## ACTIVITIES

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### •Amador Valley High School Math Team

*Aug 2022 - Present*

- Vice President; coordinated AMC 10/12 competitions for 200+ students; organized weekly meetings for contest reviews and math lectures.
- Represented school in major math competitions such as Stanford Math Tournament and Berkeley Math Tournament.

### •Amador Valley High School Physics Club

*Aug 2022 - Present*

- Vice President; managed  $F=ma$  competition for 40+ students.
- Led weekly demos, physics tutoring, and exam review sessions for club members.

### •Amador Valley High School Tennis Team

*2023 - 2025*

- Varsity member in 2024–2025, JV member in 2023; year-round training.
- Competed in East Bay Athletic League high school tournaments as Varsity Singles (5th/6th position).

### •Amador Valley Debate Club

*2023 - present*

- Varsity Public Forum debater; weekly practice and preparation on monthly PF topics.
- Competed in regional tournaments including Stephen Stewart, Berkeley Invitational, and Stanford Invitational.

## HONORS AND AWARDS

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### CODING (selected):

#### •2024-2025 USA Computing Olympiad (USACO) Finalist ([Link](#))

- Selected as one of the top 24 high school students to participate in the national summer training camp for competitive programming, in preparation for the International Olympiad in Informatics 2025.

#### •USACO Platinum Division, qualified since February 2024 ([Link](#))

#### •1st place, Pre-Collegiate Div., UC Berkeley CALICO Informatics Competition (team) ([Link](#))

*April 26, 2025*

- Competed under the team name of "how to get more points???", placed 1st out of 50+ pre-collegiate in-person teams.

#### •1st place, Advanced Div., Lockheed Martin 2025 Code Quest Sunnyvale (team)([Link](#))

*March 1, 2025*

- Competed under the team name of "Amador Dons 4", representing Amador Valley HS, placed 1st out of 50+ teams.

#### •2nd place, Advanced Div., Harker Programming Invitational 2025 (team)

*March 8, 2025*

- Competed under the team name of "One day...", placed 2nd out of 78 teams.

#### •2nd place, Advanced Div., TeamsCode Spring 2025 Virtual Programming Contest (team) ([Link](#))

*March 30, 2025*

- Competed under the team name of "just 2 usaco silvers and 1 gold", placed 2nd out of 160+ teams.

### MATH (selected):

#### •5-time AIME Qualifier (2021-2025), USAMO/JMO Index: 201 (AMO 2025), 220 (JMO 2024), 190 (JMO 2023)

#### •DHR (1%) in AMC 10A 2023, HR (5%) in AMC 10B 2023, AMC 10A 2022

#### •Distinguished Honorable Mention, Stanford Math Tournament

*April 12, 2025*

- Placed in the top 10% of the Discrete round, top 25% of the Algebra round.

#### •Honorable Mention, Berkeley Math Tournament

*Nov 2, 2024*

- Placed in the top 25% in the Discrete round.

### SERVICE:

#### •The President's Volunteer Service Award, Teens Gold Level, by AmeriCorps

*2023, 2024*

- 150+ volunteer hours in community service each year.

### MUSIC:

#### •National Piano Playing Auditions - Level Preparatory D, by American College of Musicians

*2023*

## HOBBIES

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#### •Video game developer and player. Personal passion project - developed Fire Emblem inspired RPG using Unity

#### •Piano and saxophone player

#### •Chess player, USCF peak rating 1517