

Riddhiman Rana

riddhimanrana.com

Email: contact@riddhimanrana.com

GitHub: github.com/riddhimanrana

EDUCATION

- **Dougherty Valley High School** San Ramon, California
JV Athlete for 24-25 track team, Currently in AP Calc AB, AP CS A, Honors Physics Aug 2024 – Jun 2028
- **Windemere Ranch Middle School** San Ramon, California
GPA: 3.97uw, CJSF Honors, Presidential Award for Academic Excellence Aug 2021 – Jun 2024

EXPERIENCE

- **Algoverse** Remote
Applied AI Researcher (Intern) Aug 2025 – Present
- **AlphaStar Academy** Santa Clara, California
CS Instructor Jul 2025 – Present
 - Teaching highly gifted students in grades 6–8 in the Bay Area as part of the AlphaStar–Carina Scholarship Program.
 - Providing 1:1 instruction for 32 weeks in advanced Python courses, covering algorithms, data structures, and problem-solving techniques.
- **Mustang Math** Remote
Technical Project Lead Jun 2025 – Present
 - Developing and maintaining COMPOSE, a custom tournament problem-writing platform built in collaboration with Stanford Math Tournament and Mustang Math Tournament.
 - Supporting prestigious national math competitions with over 3000 combined in-person participants by improving tooling for problem curation, review, and deployment.

PROJECTS

- **Orion Live (Jun 2025 – Present)**: Researching and developing Orion: a privacy-first, on-device visual intelligence historian that remembers objects, tracks state changes, and reconstructs events over hours and days, combining DINOv3 + FastViTHD vision-language grounding with a novel semantic uplift, SLAM-anchored spatial-temporal memory for object permanence, dynamic Memgraph knowledge graphs for episodic and relational memory, custom embeddings for temporally-aware retrieval, and Causal Influence Scoring (CIS) to surface why things changed, enabling robust, RAG-style visual Q&A with full-frame local inference and zero cloud dependence.
- **Let's Assist (Dec 2024 – Present)**: Created a full stack comprehensive online volunteering platform that helps organizations and high school CSF programs manage, track, and coordinate volunteering activities for students and communities. Currently working on expansion into Tri-Valley high schools and local organizations.

ACHIEVEMENTS AND RESPONSIBILITIES

- **USACO Gold Contestant**: Scored 1000/1000 on USACO Bronze in Feb 2024, scored 800/1000 on USACO Silver in Dec 2024, promoting to USACO Gold (top 2% of pre-college competitive programmers in the US)
- **Math Kangaroo International Camp**: Attended 10-day invitational International Math Camp in Zakopane, Poland on full scholarship to represent USA top 10 among 7 other countries; contributed to Team USA 1st place win at POTD Contest and earned individual 2nd place in Integration Contest. 3x Math Kangaroo National top 10 winner.
- **AMC 10**: Scored 132/150 on the 2025 AMC 10A
- **RSM International Math Contest Bronze**: Placed Bronze in final round, scored 12/14 on qualifying round.
- **First Class Scout**: First Class Scout at Boy Scout Troop 941, actively in troop leadership positions

SKILLS

- **Technical**: Python, C++, Java, JavaScript, TypeScript, Swift, HTML/CSS, Node.js
- **AI Frameworks/Tools**: Apple MLX, CoreML, TensorFlow, PyTorch, Tesseract.js, FastAPI, Pandas, Matplotlib
- **Web & Cloud Technologies**: Next.js, React, Astro, Flask, Django, WebSocket, Supabase, MongoDB, PostgreSQL, Firebase, Prisma, Cloudinary, Cloudflare, Vercel, Auth.js, Git, Docker