

**Ella Lan**

Class of 2024 @The Harker School (G12)

Class of 2028 @Stanford University

**Hobbies:**

Research; Dance; Student Council; Speech and Debate

**Clubs:**

Harker Associated Student Body Vice President (2023-2024); Co-President of Harker Research Club (2023-2024); Link Crew (2021-2024)

**Awards:**

MIT Research Science Institute (RSI) Scholar (2023); 2× ISEF Grand Award Winner (2nd Place TMED (2023), 3rd Place BMED (2022)); AAI ISEF Awards 1st Place Winner (2023); Regeneron STS Scholar (2024); S.-T. Yau Science Award (YHSSA) USA 1st Place (Gold) in Computer Science (2023); Davidson Fellows Honorable Mention (2023); International BioGENEius Finalist (2023); National STEM Challenge Champion (2024); 2× AIME Qualifier (2022, 2023); USACO Gold (2020-Present)

**Autobiography:**

Stepping foot into the first Amazon Go grocery store, I was fascinated by the nonexistent check-out system. Everything was automated. How was that possible? Ever since the 6th grade, my fascination with technology has grown exponentially. I loved how computer science could empower me to turn ideas into real-world solutions. Attending Stanford AI4ALL, I was introduced to deep learning technology, and I began to use AI to craft my own solutions. When my friends struggled with sleep schedules, I employed Google AutoML to predict body clocks. To help people like my grandparents, who were unable to access cardiac monitoring during the pandemic, I created my first AI architecture, reconstructing easily-obtained biomedical waveforms for continuous cardiovascular disease detection. The year after, I worked to address computational complexity challenges through creating a long-range architecture, further extending the value of digital biomarkers to diabetes detection. My development of AI-based medical solutions accumulated my compassion, enabling me to work to overcome existing limitations. I recently attended Nature Conferences—Bioengineering for Global Health. Inspired by AI experts around the world, I've begun exploring another realm of hardware design and wearables, with the aim of bringing my research to the real-world.

I feel honored and grateful to be a member of the 2024 U.S. Team for the International Olympiad in Artificial Intelligence, where I'll have the opportunity to further my study of AI as well as meet other talented individuals with similar passions!

I'd like to thank Dr. Eric Nelson, my school research advisor who has supported me through all my independent AI research projects. I'm also grateful to Professor Greg Zaharchuk, Professor Michael Moseley, and Jiahong Ouyang for everything they have taught me during my time at the Stanford Center for Advanced Functional Neuroimaging. I'd also like to thank Professor Fei-Fei Li for having fueled my passion for AI during its initial blossom through the Stanford AI4ALL program. Finally, I'm grateful to all of my family and teachers for their unwavering support of my everyday endeavors.