

Katie Li

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EDUCATION

University of Illinois Urbana-Champaign

Expected Graduation: May 2027

Bachelor of Science in Computer Science

GPA: 4.00/4.00

- 2024-2025 Rothmuller Award
- Relevant Coursework: Algorithms and Models of Computation, Data Structures, Computer Architecture, Probability & Stats for Computer Science, Software Design Lab

Monta Vista High School, Cupertino, CA

August 2020 - June 2024

- 2024 National Merit Finalist

GPA: 4.00/4.00

TECHNICAL SKILLS

- Programming Languages: C++, Python/PyTorch, Java, Javascript, SQL, HTML/CSS
- Certifications: Machine Learning Specialization (DeepLearning.AI)

PROJECTS

Stride | Mobile Fitness App

July 2025 - Present

- Engineered a mobile application that tracks and analyzes user running progress
- Implemented on-device AI for real-time running form analysis using TensorFlow and MoveNet pose detection
- Managed a database using PostgreSQL to securely store user data, running metrics, and custom training plans
- Developed a user authentication system with a login and signup flow to manage user access

Bookrates | Book Recommendation Website

May 2025 – July 2025

- Built a book recommendation system using content based filtering and unsupervised machine learning
- Developed a collaborative filtering model using several million Goodreads user interactions and 70k books
- Designed and implemented a user-item interaction matrix to model user preferences based on their past reads
- Implemented a full-stack web app – bookrates.vercel.app – using React, Flask, and Numpy

3D Unity Video Game

May 2023 – Aug 2023

- Developed a 3D psychological horror themed escape room for UC Santa Cruz's COSMOS summer program
- Utilized Unity, C#, 3D graphics and post-processing effects for enhanced visual appeal

EXPERIENCE

TheCoderSchool

April 2023 – June 2024

Code Coach

- Led 50+ weekly in-person Python lessons to a group of elementary and middle school students
- Guided students through game development projects, earning the President's Volunteer Service Award

Robotics For All

Jan 2021 – July 2021

Software Developer Intern

- Collaborated with a team of interns to program Robotics For All's main website using React, JavaScript,
- Engaged with 100+ public schools nationwide as part of the outreach team

RESEARCH & LEADERSHIP

Multimodal AI Research Project in Educational Technology

May 2025 - Present

- Developed Ellysia, a multi-modal AI system that evaluates and ranks STEM instructional videos
- Applied a research-based 12 item checklist grounded in cognitive and learning sciences to the grading system
- Utilized vision language models to assess videos across three modalities: transcripts, visuals, and audio
- Experimented on CC-licensed YouTube videos, comparing alignment between AI and human judgement

USA Computing Olympiad

Sept 2021 - June 2024

- Gave weekly powerpoint presentations to club members regarding competitive programming topics
- Programmed in C++ for competitive programming USACO contests, achieved Gold tier status