Allison S. John

CS-AI master's student at Stanford University

Menlo Park, CA
allisj@stanford.edu
linkedin.com/in/allison-john-081288130/

EXPERIENCE

Stanford Neuromuscular Biomechanics Lab — *CS Engineer Intern*

June 2024 - August 2024

Human biomechanics simulation (OpenSim) which helps study injury risk and improving athletic performance. Designed and built new features that allow customization in creating more complex kinematics. Presented poster and lightning talk at Wu Tsai Symposium.

Stanford CS 106A/B Program — *Tutor, Section Leader, Team Leader*

September 2022 - August 2023

Intro python, data structures and algorithms courses. Tutored, then invited to section lead. Led weekly section of 10-15 students, graded homework and exams, held office hours. Promoted to team leader, helping to train 6 new section leaders, and problem leader, writing the rubric for an exam problem and leading SLs on grading day.

Stanford Institutes of Medicine SIMR — *Student Researcher*

June 2021 - August 2021

Computational cancer research project. Researched the usefulness of semantic changepoint detection and other metrics of novelty to analyze published medical research for drug discoveries. Invited out of 15 students to give a keynote.

Everest Labs, Fremont CA — *Computer Vision Intern*

June 2020 - August 2020

Startup building robots to sort recycling waste. Used Python, OpenCV, numpy, and librealsense to calibrate the hand-eye coordination between a robot arm and 3d camera for accurate picking.

Science Internship Program (SIP), UC Santa Cruz — *CS Intern*

June 2019 - August 2019

"Braingineers project" on cortical organoid development, particularly techniques to support incubation or larger and more complex organoids (more neurons). Designed a compact microscope that could fit in the incubator and give a timelapse view of organoid development, with computer vision algorithms to count and classify cells.

EDUCATION

Stanford University, CA

BS in Computer Science AI Track, June 2025, 3.85 GPA, MS in Computer Science AI Track '26

Coursework includes CS 44N (Intro to Graphics), 103, 106B, 107, 109, 111, 123 (Intro to AI in Robotics), 124 (Intro to NLP), 131 (Intro to Computer Vision), 144 (Intro to Computer Networking), 149 (Parallel Computing), 155 (Security), 161 (Algorithms), 198, 221 (Intro to AI), 224V (Deep Learning for chat bots), 229 (Machine Learning), 238 (Decision Making), 246 (Mining Massive Datasets), 273C (Cloud Computing for Healthcare), and MATH 61DM, 63DM (Modern Mathematics: Discrete Methods). Active in teaching and dance teams.

SKILLS / TOOLS

AI / Robotics / Data Sci:
PyTorch, OpenCV, CUDA, Numpy, Jupyter, ROS, Scikit-learn

SW Development:
Java, Python, C++, Mathematica, mobile app dev, react native, GitHub, Jira, Confluence

HW Dev / Prototyping:
Digital circuit design, Raspberry Pi, Arduino, Fusion 360, 3D printing, optics

Graphic design, UX design

Marketing, Social Media

Teaching, Technical Presentation

HONORS

National Merit Semifinalist
1540 SAT

$10k First Prize Global Technovation Challenge

5 on CS AP in 8th Grade, 5's on ten AP exams

5x AIME qualifier

3x Invited Math Prize for Girls

Grand Prize Duke Talent Identification Project

CLUBS

Common Origins Dance Team
Member, Publicity Chair (created >25 instagram posts) 2022-2024

Legacy Dance Team
Audition, Competitive Team
2023-present

Harker, San Jose — *High School Diploma*

Advanced curriculum in core sciences and math, plus Econ, Game Theory, Neural Networks, Data Structures and Algorithms and more. President of AI Club, organized events, invited speakers, launched a discord server to keep the team together during lockdown. President of Math Club. TA for Electronic Circuits class.