

# Jack Zhou

US Citizen | Chicago, IL | 1-630-432-1688 | [jwz36@cornell.edu](mailto:jwz36@cornell.edu) | [LinkedIn](#) | Personal Website: <https://jack-z.vercel.app/>

**Technical Skills:** Python, C, C++, Java, Javascript, Git, AWS (Aurora, CDK, CW, DynamoDB, EC2, IAM, Kinesis, Lambda, RDS, Redshift, S3), OpenCV, Scikit-Learn, SQL, PostgreSQL, NextJS, React, HTML/CSS, Bias-for-action, Teamwork, Think big, Dive deep, Deliver results

## EDUCATION

### Cornell University

Major in Computer Science + Minor in AI + Minor in Business

GPA: 3.883 | SAT: 1560

**Relevant Coursework:** CS 4820 Analysis of Algorithms, CS 4414 Systems Programming, CS 3780 Machine Learning, CS 3700 AI Reasoning & Decision-Making, CS 3410 Computer System Organization & Programming, CS 3110 Data Structures & Functional Programming, Math 2210 Linear Algebra, CS 2800 Discrete Math, CS 2110 Data Structures & Algorithms.

**Club Involvement:** TedXCornell, CU Sail Project Team, Cornell Student Council.

Ithaca, NY

Expected Graduation: May 2027

## WORK EXPERIENCE

### Amazon Web Services SWE Intern

Relational Database Service Performance Insights Team

Redmond, WA

May 2025 - August 2025

- Developed a robust RDS Telemetry Platform (RTP) agent payload health monitoring solution; tracks dozens of collectors over 500K RDS database customer instances to help the team debug collector issues from all supported engines, refine RDS Performance Insights, and reduce customer impact notification time from 2 hours to 35 minutes during Large Scale Event (LSE) outages.
- Project ingests payloads from Kinesis, stores millions of records in DynamoDB, uses Lambda to emit health data to CloudWatch and log down collectors to S3 to enable numerous advanced Athena SQL queries for collector health analytics; all in near real time; leverages CDK and CloudFormation to monitor and serve multi-region fleets.

### Scale AI Intern

Gen AI Technical Advisor Internship

Remote

Feb 2025 - May 2025

- Solved olympiad competitive math (AMC & AIME) and programming problems (AtCoder, Codeforces) to train reasoning models.
- Actively collaborated with ML researchers and developers to learn and improve chain-of-thought reasoning logic and training processes.

### CS 3780 Machine Learning TA at Cornell University

Bowers College of Computing and Information Science Teaching Assistant

Ithaca, NY

June 2025 - Dec 2025

- Host weekly office hours to answer student questions; uphold high-academic exam & problem set grading standards; handle course logistics.

### University of Illinois at Chicago College of Engineering Research Intern

Xu Lab on Microfluidics

Chicago, IL

June 2021 - October 2023

- Developed a computer vision model to segment blood vessels by analyzing particulate flow; processed images through CLAHE Histogram Equalization, thresholding, and image convolution.
- Gave an oral presentation to an international group of scientists at the 2023 International Symposium of Visual Computing and published a 1st author paper in Springer's Lecture Notes in Computer Science.

### YouTube Partners Program

Educational Content Creator

Chicago, IL

April 2020 - Present

- Amassed 380K+ views, 4.5K + subscribers, and \$3K+ total ad-revenue on the Youtube channel: [@The Study of Everything](#).
- Uploaded 850+ math videos on the American Mathematics Competition 8, 10 & 12; taught lessons on Calculus, Pre-Calculus, Geometry, LeetCode, and Algebra fundamentals that reached a global audience.

## STARTUPS

Brailleo | <https://brailleo.vercel.app/> | [Github Repository](#)

2025

- Top 7 startup Finalist out of 70+ teams at the 2025 [Brown University Venture Prize](#) competing for 50K in funding; won \$7500 from the Inaugural Collegiate Enterprise Competition hosted by [LongJump.ai](#); placed 1st at the 2025 Brown University Bear Tank Pitch Competition; advanced to state at the 2025 New York Business Pitch Competition hosted by Upstate Capital.
- Developing an all-in-one braille accessibility platform with React Native; detects and translates text in real-time into braille using Azure CV; prototyping a responsive, physical braille touchpad with resin printing, esp32s, and electronics to translate readings into physical braille.
- Engineered an aesthetic website with responsive UI across desktop and mobile devices using NextJS, React, and TailwindCSS.

Gnomon Learning | <https://www.gnomonlearning.org/>

2024

- Co-founded a team of 30+ tutors to provide personalized and free one-on-one tutoring on AP testing, SAT prep, and more.
- Our nonprofit partnered with the Naperville Public Library to offer consistent weekly services to local K-12 students.

### YCombinator AI Startup School 2025

San Francisco, CA

- 1 of 2000 out of 15000+ chosen (~13% acceptance rate) to attend the 2 day event at Pier 48; personally invited to distinguished dinner with Harj Taggar, managing partner at YC; attended talks w/ Sam Altman, Satya Nadella, Jared Kaplan, Fei-Fei Li, Andrej Karpathy and more.

## PUBLICATIONS

- PMCE, a Novel Centerline Extraction Algorithm Based on Spatial Distribution of Aggregates published by Springer | [PAPER LINK](#)
- Advanced Euclidean Geometry: Beautifully Drawn Problems & Explanations published on Barnes&Nobles and Amazon | [BOOK LINK](#)

## ADDITIONAL INFORMATION + AWARDS

**Awards:** 2024 AIME qualifier, 105 score on AMC 12A, USACO Silver, Silver Presidential Volunteer Service Award (175+ service hrs)