Benjamin Li

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● LinkedIn ● GitHub ● Medium ● Google Scholar

EDUCATION

Computer Science, Cornell University 2025-2029
Relevant Coursework (Fall 2025): MATH 2210 (Linear Algebra), CS 2110 (Object-Oriented Programming and Data Structures), COGST 2801 (Intro to Game Theory), STS 2810 (Science, Nature, and Knowledge)
SAT: 1560/1600 (770 reading, 790 math); PSAT: 1510/1520 (750 reading, 760 math) - National Merit Finalist 2023
High School GPA: 4.67/4.00 (top 5%)

EXPERIENCE

Student Researcher (Computer Vision, Bioinformatics) 2022-Present

- Developed more efficient & accurate algorithms to delineate toxin-producing cyanobacteria, segment brain tumors, and predict human-infecting, viral zoonoses based on genomics sequences.
- Special focus on few-shot learning and optimizing setups given limited computing resources/data quality

Intern, Regeneron (on-site) Summer 2025

- Created an open-source implementation of a quantum optimization algorithm to solve for the most probable molecular docking configuration between a protein and ligand (https://github.com/25benjaminli/molecular_docking_qaoa)
- Presented & discussed work with multiple internal Regeneron teams and IBM research team members
- Managed by Dr. Jeffrey Reid, Vice President & Chief Data Officer of the Regeneron Genetics Center

President of **Millburn High School Computer Science Integration Initiative (CSII) Club** 2022-2025

- Developed & maintained a kiosk sign-in security app serving 1600 students, built websites for school clubs, and launched a guest speaker series featuring scholars in AI & ethics, medical imaging, and robotics
- **Founding editor-in-chief for "Catalyst" CS & engineering magazine**

Volunteer & Leader 2021-2025

- Jersey Cares project coordinator, managing volunteers for the upkeep of Liberty State Park (cleanup and garden maintenance)
- Co-lead developer for a prototype volunteer outreach app to serve Jersey Cares' 20,000 volunteers statewide
- Developed a judging application for the New Jersey Academy of Sciences (NJAS)'s annual research symposium, served over 200 students and 80 judges

Founder, Inventurn 2022-2025

- Company focused on building web and mobile applications for companies with advanced use-cases
- As the core backend developer, designed APIs, database logic, learned to build web3, blockchain-embedded tools for nonprofits and businesses. Developed detailed workflows and journals to keep team members on-track and hold them accountable for work

Robotics Member at **Millburn High School's Robotics Club** 2019-23

- Programmer in VEX VRC (2 years) and FTC (1 year) from middle school until the end of sophomore year
- Developed autonomous software that helped the team reach 2nd place in NJ in 2020

HONORS

Regeneron Science Talent Search Top 40 Finalist 2025

- The "oldest and most prestigious" science competition in the United States, with nearly 2,500 applicants who are evaluated based on "the originality and creativity of their scientific research, as well as their achievement and leadership"
- Awarded $25,000 for research on building an algorithm to detect brain tumors with low-quality MRI scans from sub-Saharan Africa

American Junior Academy of Science (AJAS) 2025

- New Jersey representative for presentation at the AJAS National Annual Conference, Boston
- Selected after winning 1st place in Math and Computer Science at the NJAS regional fair

Johns Hopkins Global Health Leaders Conference (GHLC) 2024

- 9.3% acceptance rate (2023) for participants
- Presented as part of the Student Speaker Series (20-30% acceptance rate out of GHLC speaker series applicants)

National Junior Science and Humanities Symposium (JSHS), U.S. Department of Defense 2023

- Research: "A Novel Stacked Ensemble Machine Learning (SEML) Model for Predicting Viral Zoonoses"
- New Jersey Representative for Poster Session at JSHS National Conference, Virginia

- Selected after placing #2 in poster pitch out of hundreds of submissions from thirty participating schools in the regional fair

IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference @ Columbia University 2023

- Research*:* "Identification of Cyanobacteria for Harmful Algal Blooms Research Using the YOLO Framework"
- Best Paper Award, Best Presenter Award: Artificial Intelligence/Machine Learning

New York Times STEM Writing Contest 2023

- Honorable Mention (Top 1% among over 3000 worldwide submissions) for article "Black Box Algorithms: Exploring One of the Most Misunderstood Technologies"

TNJSF (Terra North Jersey Science Fair, associated with Regeneron's ISEF) 2023-2024

- "A Novel Stacked Ensemble Machine Learning (SEML) Model for Predicting Viral Zoonoses": 2nd place Bioinformatics, Association for Computing Machinery Award in 2023 fair
- "Few-Shot, Self-Prompting, Parameter-Efficient Medical 'Segment Anything' for Aiding 3D Brain Tumor Diagnosis": 2nd place Computational Neuroscience, Karen Kranz Independent Researcher Award (awarded to 2/150) in 2024 fair

Naval Horizons STEM Essay Contest, U.S. Navy 2022

- Highest Honors winner for essay on the ethics and future of artificial intelligence in the military

Presidential Volunteer Service Award (Gold) 2022

American Computer Science League (ACSL) Intermediate Division Finalist 2022

VEX VRC Robotics World Championship Qualifier 2022

PUBLICATIONS

Li, B., Ding, K, Dera, D. (2025). MD-SA2: optimizing Segment Anything 2 for multimodal, depth-aware brain tumor segmentation in sub-Saharan populations. J. Med. Imag. 12(2). https://doi.org/10.1117/1.JMI.12.2.024007

Li, B., Serrano, K., Mazzaro, M., Wu, M., Wang, W., & Zhu, M. (2023). Identification of Cyanobacteria for Harmful Algal Blooms Research Using the YOLO Framework. IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON). https://doi.org/10.1109/uemcon59035.2023.10316078

Li, B. (2023). A Novel Stacked Ensemble Machine Learning Model for Predicting Viral Zoonoses. (Poster accepted, not presented due to insufficient funds) Association for Computing Machinery (ACM) 2023 Annual Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB).

HOBBIES

I enjoy writing articles on Medium.com (https://medium.com/@25benjaminli). Topics include computer vision guides, tips on approaching medical image segmentation, idea generation, and AI ethics.

I also like running, hiking, rock climbing, and learning geography!

- Cross Country, Track and Field (JV/Varsity) - medaled at local championship in the triple jump, completed Loon Mountain Race ("Most Competitive Hillclimb" - Runner's World Magazine)
- Ranked #80 in the USA in the competitive GeoGuessr game (May 2025) - 65 million registered players worldwide

SKILLS

Python • Java • JavaScript/Typescript • C/C++ • Data analysis/visualization (Pandas, NumPy, Matplotlib, Plotly) • Machine/deep learning (PyTorch, scikit-learn) • Imaging and Computer Vision (OpenCV, YOLO, MONAI) • Web/App Dev (React/Next.js, Flutter, Flask, Firebase)