

ANNE CHRISTIONO

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EDUCATION:

Massachusetts Institute of Technology, Cambridge, MA

2024 – 2028

Bachelor of Science in Computer Science and Mathematics

GPA: 5.0/5.0

Relevant Courses: Intro to ML, Intro to Algorithms, Probability & Random Variables, Linear Algebra, Fund of Programming, Physics II

Activities: MIT Hacking Medicine (Executive), Society of Women Engineers (Executive), Women in EECS, IEEE, Undergrad Math Assoc.

William P. Clements High School, Sugar Land, TX

2020 – 2024

High School Diploma, Summa Cum Laude

GPA: 4.67/4.00 | Rank: 5/640 | SAT: 1580 (R: 780; M: 800) | AP: 5/5 on 14 exams

SKILLS:

- Technical Skills: Proficiency in Java, Python, C++, SQL, HTML; extensive work with scikit-learn (Python ML), LaTeX, MS Office
- Leadership, Entrepreneurship, Problem-Solving, Teamwork, Adaptability, Time Management, Communication & Presentation

EXPERIENCE:

Paid Undergraduate Researcher, MIT Media Lab

09/2024 – 01/2025

Harnessing Language Models for Autonomous Biological Discovery

- Developed PyLabRobot, a versatile cross-platform Python interface to program a wide range of liquid-handling robots
- Leveraged LangChain (LLMs) to implement PyLabRobot features to execute experiments based on natural language prompts

Paid Research Intern, Houston Methodist Research Institute – Mathematics in Medicine Department

05/2023 – 08/2023

Predicting Nanoparticle Toxicity Through Machine Learning-Based Models

- Paid Research Intern in the Summer Undergraduate Research Internship, Mathematics in Medicine department
- Programmed 18 binary classification models on dataset of 8k+ samples curated from literature review to classify cytotoxicity of nanoparticles (NPs) & determine critical features to guide intentional engineering of safe NPs in rational drug design
- Project presented at final poster symposium; research paper accepted for publication in ACS Nano Journal

Paid Data Analytics Research Intern, The MITRE Corporation

06/2022 – 08/2022

State-of-the-Practice Analysis of U.S. Synthetic Biology Ecosystem (Synthetic Biology Moonshot, sponsored by U.S. Dept of Defense)

- Conducted statistical analyses of the International Genetically Engineering Machine (iGEM) competition, academic literature review, business reports, and interviewing of Subject Matter Experts in the SynBio field
- Multiple reports published internally to MITRE; presented final project to the company leaderships in summer symposium

Researcher in Optimization & Mathematical Modeling, DSM Academy affiliated w/ Texas State Univ.

10/2021 – 03/2022

The Wiener Index: From Trees to Graphs with Many Cut-Edges

- Devised a C++ computer algorithm to calculate the topological Wiener Index of a sparse chemical graph more efficiently
- Speaker at the 53rd Southeastern International Conference in Combinatorics, Graph Theory, and Computing hosted by Florida Atlantic University in March 2022; abstract published in conference book of abstracts

PUBLICATIONS:

- Cave, J., Christiono, A., et al. (2025). Rational Design of Safer Inorganic Nanoparticles Via Mechanistic Modeling-informed Machine Learning. *ACS Nano*, 19(23), 21538–21555. <https://doi.org/10.1021/acsnano.5c03590>
- Christiono, A., et al. (2022). The Wiener Index from Trees to Graphs with Many Cut-Edges [Conference presentation abstract]. 53rd Southeastern Int'l Conference in Combinatorics, Graph Theory, and Computing, Florida Atlantic University.

HONORS AND AWARDS:

- USA Computing Olympiad (USACO): Gold Division Competitor, since 2021
- National Center for Women & Information Technology: 2x National Honorable Mention & Houston Award Winner, 2022-23
- American Invitational Mathematics Examinations (AIME): 5x Qualifier, 2020-2024
- Math Prize for Girls: 2x Invitee, hosted at the Massachusetts Institute of Technology, 2021 and 2023
- 2023 Coolidge Senator: Top 100/4,100+, \$1,000 scholarship & all-expenses paid trip to Coolidge Senators Centennial Summit
- Science Olympiad: 2x National Medalist, 2x National Science Olympiad Qualifier, 25+ medals in CS/math/biology events
- USA Biology Olympiad (USABO): Semifinalist, March 2023
- New York Times STEM Writing Contest: Runner-Up (Top 24 of 3,500+ submissions worldwide), May 2022
- Piano: 4x National Gold Cup by the National Federation of Music Clubs; 2022 Outstanding All-State Winner

LEADERSHIP AND COMMUNITY INITIATIVES:

NUS High School of Math and Science: Teacher for Advanced Calculus & Machine Learning

01/2025 – 02/2025

- Prepared and led calculus and ML courses for penultimate-year students as part of MIT's Global Teaching Labs in Singapore

INTEGIRLS Houston: Advisor (present), Chapter Director (2022-2024), Website Director (2021-2022)

08/2021 – present

Global youth-led non-profit to bridge the gender gap in STEM through free, virtual math contests for female & nonbinary students

- Led 9 regional directors to organize contests (participants doubled to 130+ globally); raised \$10K+ from sponsors annually (doubled from previous year, newly acquired sponsorship from AOPS, Hudson River Trading, Jane Street, Geogebra)

Innoverge: Founder of Sugar Land Chapter - Regional Director in the Global Team

09/2021 – 06/2024

Global youth-led non-profit to inspire a passion for STEM in underrepresented groups through triannual educational sessions

- Organized K-12 workshops reaching 40 students annually and collaborated with global director team to build curriculum