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EDUCATION & ECs

PRINCETON UNIVERSITY

B.S.E. STUDENT | CLASS OF 2025 | GPA UW 3.9/4.0

Princeton, NJ

- Major: Computer Science (COS)
- Certificates: Optimization and Quantitative Decision Science, Statistics & Machine Learning, Finance
- Relevant courses: Adv. Vector Calculus, Adv. Linear Algebra w/ Applications, Algorithms & Data Structures, Fundamentals of Statistics, Adv. Physics (Mechanics), General Physics II, Introductory Logic
- ❖ Lead SWE on The Daily Princetonian Technology Team, member of Princeton Debate Panel, member of Princeton Women in Entrepreneurship

UNIVERSITY OF CHICAGO MASTERS PROGRAM IN COMPUTER SCIENCE (MPCS)

Non-degree-seeking high school student | 2019–2021

Chicago, IL

 Courses: iOS Application Development (Grade: A); Algorithms (Grade: A); Introduction to Software Engineering (Grade: A)

UNIVERSITY OF CHICAGO LABORATORY SCHOOLS

HIGH SCHOOL DIPLOMA | CLASS OF 2021 | GPA UW 4.0/4.0 Chicago, IL

- Awards: Brian Swan award for AT Physics I, Achievement in Computer Science award, Eunice Helmkamp McGuire Excellence in Writing award, Finalist.
- Executive Board of Student Council (Director of Technology), debating team (Novice), Vice-President of Girl-Up Club, Varsity Volleyball (Co-Captain), Board of Artsfest
- ❖ Relevant courses: AP CS; Computer Architecture; Discrete Math; AI & ML; AT Economics; Linear Algebra/Multivariate Calculus
- Member of Science, Math (qualified for AIME 2020, 2021), Robotics

EXTRACURRICULARS

Played piano since 4 y/o. Completed all 12 levels of the Achievement in Music (AIM) program.

APTITUDE & SKILLS

STANDARDIZED TEST SCORES & AWARDS

SAT 1590/1600 [Aug '20] • ACT 36/36 [Dec '19] • National Merit Scholarship 2021 Finalist: 224/226 • 2021 Semifinalist for U.S. Presidential Scholars Program • SAT Math 2: 800 • SAT Physics: 790

SOFTWARE SKILL SETS

MacOS • Windows • Linux/Unix • C/C++ • Java • Python • Bash • TypeScript • Swift • React • Node.js • LaTeX • SQL • Firebase • NumPy + Pandas • MATLAB • R • Fusion360 • Blender • Flask • PyQt5 • PyTorch • AWS • Kafka • InfluxDB • Grafana • Docker

EXPERIENCE

D.E. SHAW DISCOVERY FELLOWSHIP [link]

NOMINATED STUDENT | Aug 2022 | New York, NY

Selective three-day program for a small group of sophomore-year undergraduate women. Invited to D.E. Shaw's headquarters to learn about the intersection of finance and technology through interactive case studies and seminars.

CME GROUP [link]

INTERN - PRODUCTION ENGINEERING TEAM | May 2022-Aug 2022 | Chicago, IL

Use Robot Framework to implement automation of end-to-end testing for reporting. Setting up the framework and developing customer code using Python for order entry, report task automation, and result validation.

ARTIFICIAL INTELLIGENCE FOR 3D DATA - UCHICAGO 3DL [link]

RESEARCH INTERN | June 2022- | Chicago, IL

- Working with Assistant Prof Rana Hanocka. 3DL works at the intersection of deep learning and 3D, with applications in computer graphics, machine learning, and computer vision.
- Developing an extension to the Text2Mesh project.

APPLIED AI/ML AT UCHICAGO SAND LAB [link]

SUMMER RESEARCH ASSISTANT | Jun 2021-Aug 2021 | Chicago, IL

- Selected for a research internship at the University of Chicago SAND Lab (Security, Algorithms, Networking, and Data) through the Data Science Institute (DSI) Summer Lab program. I worked with Professor Ben Y. Zhao.
- Conducted research on physical backdoor attacks in computer vision models. Developed an automated process using graph analysis techniques to uncover viable physical triggers in pre-existing object datasets for training.
- ❖ Co-first author on paper submitted to NeurIPs 2022 dataset track: [link]

COMPUTER-AIDED DIAGNOSIS: UCHICAGO GIGER LAB ML/AI [link]

SUMMER RESEARCH ASSISTANT | Jun 2020 – Jun 2021 | Chicago, IL

- Worked with Dr. Maryellen Giger, Dr. Karen Drukker, and Ph.D. candidate Lindsay Douglas on project about quantitative radiomic analysis for abbreviated/ultrafast breast MRI. Compared lesion segmentation methods, including convolutional neural networks.
- First author of research abstract accepted to Optics & Photonics organization SPIE's Medical Imaging Conference, Feb 2021—delivered an oral presentation ([link]).

CITADEL [link]

INTERN - EQUITIES DATA ENGINEERING TEAM | Jun 2019 - Aug 2019 | Chicago, IL

- Developed usage tracking architecture. Built "milestone" dashboard to track ETL processes. Gained experience with Kafka, Airflow, InfluxDB, Docker, and more.
- Delivered a "lunch and learn" talk on Kafka to the department
- Evaluation/feedback from my manager: "What makes Roma stand out is her willingness to take on something unknown and her ability to learn it through doing research ... and build that knowledge without hesitation. [This] will make her an exceptional engineer in the future."