Roma Bhattacharjee

Chicago, IL • roma.bhattacharjee@princeton.edu • linkedin.com/in/romabhattacharjee • (312) 532-0230

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 • HTML • TypeScript/JavaScript • PHP • Swift • React • Node.js • LaTeX • MySQL • PostgreSQL • Firebase • Excel • NumPy + Pandas • MATLAB • Fusion360 • Blender • Flask • PyQt5 • Tensorflow • Apache Web Server • Kafka • InfluxDB • Grafana • Docker

EXPERIENCE

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. Will set up the framework and develop customer code using Python (or Java) for order entry, report tasks 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.

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

Summer Research Assistant | Jun 2020–Jun 2021 | Chicago, IL

- Worked with Dr. Karen Drukker, Dr. Deepa Sheth, and Ms. Lindsay Douglas (PhD candidate) on project about quantitative radiomic analysis for abbreviated/ultrafast breast MRI. Radiomics is high throughput conversion of images to mineable data that can be viewed as descriptors of tumors and "normal" tissue.
- First author of a research abstract accepted to Optics and Photonics organization SPIE's Medical Imaging Conference, February 2021—delivered an oral presentation ([Link]). Project involved comparing breast lesion segmentation methods, some of which utilized convolutional neural networks.