Roma Bhattacharjee

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EDUCATION & ECs

PRINCETON UNIVERSITY

B.S.E. Student | Class of 2025 | GPA UW 3.9/4.0

- **Major**: Computer Science (COS). **Minors**: Optimization and Quantitative Decision Science, Applied and Computational Mathematics, Statistics & Machine Learning
- **Relevant courses**: Economics and Computing, Natural Language Processing, Probability and Stochastic Systems, Adv. Vector Calc (MAT203), Adv. Linear Algebra w/ Applications (MAT204), Algorithms & Data Structures (COS226), Fundamentals of Statistics, Adv. Physics (Mechanics), Macroeconomics
- **CTO for '23–24** for The Daily Princetonian. **TA** for MAT203/204 & COS226. **Member of**: Prospect Student Ventures, Debate Panel, Women in Entrepreneurship

OXFORD UNIVERSITY

(Upcoming) semester abroad – Spring 2024

- Will complete 4 in-depth tutorial-style computer science courses during Hilary and Trinity terms.

UNIVERSITY OF CHICAGO MASTERS PROGRAM IN COMPUTER SCIENCE (MPCS)

As high school student | 2019–21 | Chicago, IL

- Courses: iOS Application Development (Grade: A); Algorithms (Grade: A); Intro to Software Engr (Grade: A)

UNIVERSITY OF CHICAGO LABORATORY SCHOOLS

High School Diploma | 2021 | GPA UW 4.0/4.0 | Chicago, IL

- Awards: Brian Swan award for AT Physics I, Achievement in CS, Eunice H. McGuire Excellence in Writing (finalist).
- Exec Board of Student Council, Varsity Volleyball (co-captain), Artsfest Board

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 •NumPy + Pandas •MATLAB •R •Fusion360 •Blender •Flask •PyQt5 •PyTorch •AWS •Kafka •InfluxDB •Grafana •Docker

Bloomberg •Completed "Bloomberg Market Concepts" course

Music •Piano—completed all 12 levels of Achievement in Music (AIM) program.

EXPERIENCE

ALTAMONT CAPITAL PARTNERS [link]

Sophomore Summer Analyst | Jun 2023–Aug 2023 | San Francisco, CA

- Working with one of Altamont's private equity portfolio companies in strategy and analysis.

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

- Implemented Robot Framework to automate end-to-end execution of MiFID report generation, kicking off a multi-year project to replace existing framework. This included building an order entry library in Python to interact with Globex—CME's ETS—via Simple Binary Encoding (SBE).

STARTUP – STEALTH MODE

SWE – Core team | May 2022–May 2023 | Remote

- Application build-out for a product for the Construction & Engineering Industry. VC-backed.

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

Research Intern | June 2022–Oct 2022 | Chicago, IL

- Worked with Assistant Prof Rana Hanocka at 3DL (researches deep learning methods applied to 3D computer graphics/vision). Aided development of an extension to the Text2Mesh project.

APPLIED AI/ML AT UCHICAGO SAND LAB [link]

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

- Worked with Professor Ben Y. Zhao and Emily Wenger at the University of Chicago SAND Lab through the Data Science Institute (DSI) Summer Lab program.
- Conducted research on physical backdoor attacks in computer vision models. Developed automatic graph analysis techniques to uncover viable triggers in pre- existing datasets. Co-first author on paper, accepted to NeurIPS 2022 dataset track.

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

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

- Worked with Dr. Maryellen Giger, to compare abbreviated/ultrafast breast MRI lesion segmentation methods, including segmentation via convolutional neural networks.
- First author of research abstract accepted to Optics & Photonics organization SPIE's Medical Imaging Conference, Feb 2021—delivered an oral presentation.

CITADEL [link]

Intern – Equities Data Engineering Team | Jun 2019 – Aug 2019 | Chicago, IL

- Built usage-tracking architecture and ETL process "milestone" dashboard with Kafka, InfluxDB
- 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."*