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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)
- Minors: Optimization and Quantitative Decision Science, Applied and Computational Mathematics, Statistics & Machine Learning
- Relevant courses: Adv. Vector Calc (MAT203), Adv. Linear Algebra w/ Applications (MAT204), Algorithms & Data Structures (COS226), Fundamentals of Statistics, Adv. Physics (Mechanics), General Physics II, Intro Logic, Macroeconomics, Probability and Stochastic Systems
- Acting CTO & Lead SWE for The Daily Princetonian. TA for MAT203/204 & COS226. Member of: Prospect Student Ventures, Debate Panel, 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); Intro 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 CS, Eunice H. McGuire Excellence in Writing (finalist).

#### **MUSIC**

 Piano—completed all 12 levels of 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

 ${\sf MacOS} \bullet {\sf Windows} \bullet {\sf Linux/Unix} \bullet {\sf C/C++} \bullet {\sf Java} \bullet {\sf Python} \bullet {\sf Bash} \bullet {\sf TypeScript} \bullet {\sf Swift} \bullet {\sf React}$ 

- •Node.js •LaTeX •SQL •NumPy + Pandas •MATLAB •R •Fusion360 •Blender •Flask
- PyQt5 PyTorch AWS Kafka InfluxDB Grafana Docker

# **EXPERIENCE**

## **ALTAMONT CAPITAL PARTNERS** [link]

(UPCOMING) SOPHOMORE SUMMER ANALYST | June 2023-August 2023 | Palo Alto, CA

\$ Will be 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 test framework.
- This included building an order entry library in Python to communicate with Globex—CME's electronic trading system—via Simple Binary Encoding (SBE).

#### STARTUP - STEALTH MODE

SWE - CORE TEAM | May 2022- | Remote

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

## 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."