

# Sarene Choudhury

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Github: <https://github.com/sarenechoudhury>

Website: <https://sarenechoudhury.github.io/>

Highly motivated student with strong background in science and mathematics, and with excellent work ethic and creative abilities. Seeking to apply my computer, data-analysis, and problem-solving skills as an intern at your company.

## EDUCATION

### University of Chicago, Chicago, IL

*Class of 2027*

- Undergraduate Majors: Computer Science, Cinema Studies
- Relevant Coursework: Intro to Computer Science I & II, Systems Programming I, Algorithmic Culture, Calculus I & II.

### Horace Mann School, New York, NY

*Class of 2023*

- Relevant Coursework: Computer Science Seminar, Theoretical Computer Science, Art of Data, Software Engineering, Calculus, Honors Geometry, Honors Algebra II & Trigonometry, Mobile App Development.

### Pre-College Programs:

- Introduction to Quantum Computing, *Brown University, Providence, RI* *Summer 2022*
- Introduction to Investment Portfolio Management, *Columbia University, New York, NY* *Summer 2021*
- Introduction to Computer-Aided Design and 3D Printing, *Brown University, Providence, RI* *Summer 2020*
- Entrepreneurship and Innovation: Changing the World via Venture Creation, *Columbia University, New York, NY* *Spring 2020*
- Technology and the 2020 Election, *Stanford University, Palo Alto, CA* *Fall 2020*
- Introduction to Data Science B: Visualization and Modeling, *Stanford University, Palo Alto, CA* *Fall 2020*
- Building and Programming an LED Light Cube with Arduino, *Brown University, Providence, RI* *Summer 2019*

## WORK EXPERIENCE

- Quantbot Technologies LP, New York, NY, USA. *Jun–Aug 2024*
  - Built ML models using Keras, Tensorflow, and LightGBM. Tested functions to upgrade from Python 3.9 to 3.11.
  - Researched and tested benefits of quantized gradients in LightGBM models.
  - Created DeepChecks API suites for automated model evaluations in an online setting.
  - Explored feature generation using OptionsTAQ data for equity-returns prediction.
  - Experimented with neural network implementation concerning layer types, normalization, quantization, early stopping, augmented boosting, and combination models with NN and LGBM implementation.
- Breakwater Yacht Club, Sag Harbor, NY. Sailing Instructor *Summer 2021 & Summer 2022*
- Math and SSAT tutor for former GLAM (Girls Learning Advanced Math) student. *2021-2022*

## AREAS OF EXPERTISE

- Data Science:** Experience in analyzing data using Python with pandas (and basic R), feature generation. Proficient in ML modelling.
- Programming:** Experience with Python, JavaScript, C, HTML, SQL, CSS, and beginner's R and C#. Built user interfaces using Vue. Created games using Unity. Knowledge of Excel.
- Finance:** Applied investment concepts to analyze companies. Invested personal summer earnings in specific stocks.

## MAJOR ACHIEVEMENTS

- Data Science:** Created an ML model using R to forecast COVID-19 mortality in NYC, as final project at Stanford's Summer Program.
- Programming:** Created a programmable LED light cube, as team final project at Brown's 2019 Summer Pre-College Program.

## AWARDS & HONORS

- Director General of Model UN team at Horace Mann. Two-time recipient of Outstanding Delegate award.
- Executive Editor of *Cinemann* (Film and TV Magazine) at Horace Mann.
- Managing Editor of *The Review* (Current Events Magazine) at Horace Mann.

## INTERESTS

- Team Manager for U Chicago Club Basketball - coordinating games, running social media.
- High School: Volunteer for and co-run newsletter for GLAM – Girls Learning Advanced Math, to teach math to middle-school girls.