# Maya Ravichandran

## Education
**Rutgers University–New Brunswick** – New Brunswick, NJ                    (Sept. 2017 – May 2021)
- B.S. in Computer Science
- Honors College; Presidential Scholar; SAT: 2400/2400; GPA: 4.00/4.00
- <u>Coursework</u>: Data Structures, Computer Architecture, Discrete Math, Algorithms (current)

## Experience
***Sales and Trading Summer Analyst*, Bank of America Merrill Lynch** – New York, NY        (June 2019 – August 2019)
- Proposed buying TWLO stock to Equity Swaps desk, and designed and priced hedges for the trade, including constructing a custom basket of equities and an options collar
- Proposed buying five-year swap spreads, based on Fed's Standing Repurchase Facility and termination of balance sheet unwinding, to Global Rates team

***Data Engineering Intern*, Commvault** – Tinton Falls, NJ                    (July 2018 – August 2018)
- Created CSV reports of user activity data and inputted them into ARIMA prediction models using C++ to improve system availability for customers through intelligent scheduling of activities

***Research Intern*, National Cancer Institute, National Institutes of Health** – Bethesda, MD     (May 2018 – July 2018)
- Identified structural variants in osteosarcoma genome sequences as targets for further research
- Improved accuracy of probabilistic framework for structural variant discovery by eliminating false positives utilizing results from logistic regression model, implemented in R

***Software Engineering Intern*, Commvault** – Tinton Falls, NJ                    (June 2017 – August 2017)
- Designed and developed a dynamic web interface to improve CI/CD workflow for in-house software development
- Performed full-stack development using Angular, Bootstrap, HTML, CSS, Java, SQL, and MS SQL Server

***Research Intern*, Princeton University** – Princeton, NJ                    (July 2016 – January 2017)
- Investigated the impact of sulfate attack on the atomic structure of eco-friendly alkali-activated cement
- Analyzed eight million data points from Advanced Photon Source particle accelerator at Argonne National Laboratory
- Identified atomic bonds using Fourier transforms and X-Ray Pair Distribution Function analysis
- Presented findings in multiple venues locally and internationally

## Skills
Python, R, Java, JavaScript, C++, C, TypeScript, Angular, HTML, CSS, Bootstrap, SQL

## Leadership
***Senator*, University Senate, Rutgers University System**                    (April 2018 – Present)
- Representing ~20,000 School of Arts and Sciences students to governing body of administrators, faculty, and students
- Chairing undergraduate-alumni relations committee to create a comprehensive directory of 500,000 Rutgers alumni

***Vice President / Education Director*, Rutgers Computer Science Organization**        (April 2018 – April 2019)
- Spearheaded 1:1 mentorship program to match upperclassmen with > 130 underclassmen
  - Improved mentor-mentee engagement from little to none during previous year to ~70% of pairs communicating at least once per week in current year, utilizing new pairing process based on shared rapport and interests
- Led team to source speakers and review presentation content for weekly "Hacker Hour" technology lecture series by industry representatives, alumni, professors, and students, with ~35 students in attendance per event

## Projects
***Moozic*: Algorithmic music composition**
- Developed web app to compose computer-generated, original music that users may dynamically edit to their specifications, resulting in downloadable audio and sheet music that users would find pleasing and inspirational
- Created algorithm to generate melody, harmony, and rhythm with random functions and original set of musical rules

## Awards/Honors
- Finalist, Intel International Science and Engineering Fair (ISEF)                    (May 2017)
- US Congressional Award Gold Medal                    (May 2016)
- Violin: Performed at Carnegie Hall and Lincoln Center                    (March & April 2014)