

Cassandra Marcussen

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EDUCATION

Columbia University in the City of New York, New York, NY

2018 - 2022

-Bachelor of Arts, Double Major in Computer Science & Mathematics

-Honors: Dean's List, John Jay Scholar (Columbia University Scholars Program)

-Completed Coursework: Advanced Programming, Discrete Mathematics, Modern Algebra I, Honors Introduction to Computer Science, Data Structures, Honors Mathematics A, Honors Mathematics B, Frontiers of Science (Student Ambassador)

-Current Coursework: Computer Science Theory, Fundamentals of Computer Systems, Number Theory and Cryptography, Undergraduate Projects in Computer Science (CS Research)

Greenwich High School, Greenwich, CT

GPA 4.95; ACT 35

Graduated

-National Merit Finalist, National AP Scholar, YWCA Brava "Next Generation" Award Recipient, Co-Founder & Co-President of Girls Who Code Club, US All-Eastern Orchestra, Mu Alpha Theta

2018

PROFESSIONAL EXPERIENCE

Google, Incoming Software Engineering Intern

May - August

-Incoming STEP software engineering intern for the Google Geo StreetView team. During the 12-week internship, I will be working on a project in C++ and Java. For the project, I will develop a machine learning model that facilitates the process in which user-submitted photos can be integrated into the Google StreetView map. The project will be incorporated into Google Maps, which reaches a user base of hundreds of millions of people monthly.

2020

Columbia University - Department of Computer Science, Research Assistant

January 2020

-I work on data processing and improving machine learning tools for the interdisciplinary machine learning research project of Principal Investigator Dr. Salieb-Aouissi (Senior Lecturer in Artificial Intelligence). The project leverages advanced methods in machine learning and the large data set about preterm birth to study the causes and identifiers of preterm birth.

- Present

Amazon, Software Development Engineer Intern

May - August

-Designed and implemented a full-stack web application to streamline the AmazonAPI governance body's API approval process. Programmed in JavaScript, NodeJS, Python, HTML, CSS, and Markdown.

2019

-The website provides filters and a search bar to sort APIs by ETA, status, alias, or title. Page users can dynamically view and revise submitted APIs and post comments. Displayed APIs contain a description and conversation section converted from Markdown to HTML.

-The website automates user authentication and weekly email notifications.

-For back-end development, I created three APIs and eight AWS Lambda functions, as well as a scheduled task runner and a Markdown-to-HTML converter. Created, queried, and updated a DynamoDB mailing list database using AWS API Gateway and AWS Lambda.

-For front-end development, I implemented an intuitive, responsive user interface using the Bulma CSS framework.

-Wrote >100k lines of code over 12 weeks that were pushed to production.

Freelance Website Developer

-Design and develop websites for nonprofits, businesses, and startups such as Il Makiage, Skip the Straw Greenwich, Under My Wing, and Momentum Prep. I work with businesses at all stages of website creation.

-I am currently working with the company Il Makiage to implement a quiz that matches customers to makeup products that best fit their skin tone, complexion, and needs. I am also building a website for a student group at UChicago called Fire Escape Films, so that the club can host and organize their past films online in a more organized, accessible manner.

December
2016 -
Present

Zaniac Learning, Computer Science and STEM Instructor

-Instructed courses in computer science (Python, JavaScript, HTML/CSS), web development, robotics, and physics.

-I taught classes ranging from pre-K to high school levels using a project-based curriculum. I divided class time between learning collectively and working individually on projects and assignments.

June - August
2018

Under My Wing, Co-Founder, Co-Creator & Project Manager

-Under My Wing is a mobile application that seeks to equip women with resources to protect themselves from sexual assault. Features include self-defense tutorials, external links, and a 'fake phone call' timer.

-Under My Wing won Best in Nation and \$20k in the 2017 Verizon App Challenge. Selected as an MIT App Inventor 'Most Innovative' application (2017). Winner of the Acorda Scientific Excellence Award.

-Responsibilities included organizing the team's activities, promotional efforts, app creation, and website creation.

-Guest speaker at events such as the Technology Student Association's National Conference, the Girls Who Code annual gala, and the Random Hacks of Kindness Junior Hackathon, as well as the Lisa Wexler Show.

December
2016 - 2018

LEADERSHIP AND ACTIVITIES

Columbia Association for Women in Mathematics, Co-Chair of Events

-As Co-Chair of Events, I brainstorm and implement ideas for events and help to secure speakers for events. I manage the club's list-serv, email, and social media maintenance. I create publicity material, reserve event spaces, and execute administrative work for events.

February
2020 -
Present

Columbia Pops Orchestra, Treasurer / VP Finance on Pops Board & Cello Section Leader

-As Treasurer / VP Finance, I manage the organization's budget and fundraisers.

-As VP Social, I managed internal events, outreach, social media, and the website.

-As Cello Section Leader, I organize rehearsals and activities specifically for the cello section to foster a sense of inclusion and growth among the cellists.

September
2018 - Present

Bwog, Technology Contributor & Web Developer

-Coordinate and contribute to the tech team for Bwog, an independent, student-run news website for the Columbia community. I serve both as a project manager for collaborative projects as well as an individual contributor.

-As a Technology Contributor, past projects I have directed and worked on include: the website's Tip Submission page, Upvotes/Downvotes for articles' comment sections, and the visual layout of the website. I program primarily in JavaScript, HTML, and CSS.

April 2019 -
Present

Columbia Debate Society, Varsity Debater & Debate Coach

September
2018 - Present

- Semi-finalist at the 2018 Fordham Debate tournament.
- Debate coach for The School at Columbia University's after-school public speaking program. Responsibilities include mentorship, debate case content revision, and assisting student preparation before and at tournaments.
- Presenting a lecture for the team titled "Intersecting AI and Ethics"

Columbia University Orchestra & Music Performance Program, Cellist

September
2018 - Present

- Performer in Classical Chamber Ensemble and Contemporary Chamber Ensemble

SKILLS AND INTERESTS

Tools and Technologies: Java, C, C++, Python, JavaScript, HTML, CSS, R, Markdown, Ruby, jQuery, NodeJS, PHP, C#, LaTeX, MIT App Inventor, RESTful APIs, AWS Lambda, AWS DynamoDB, AWS API Gateway, MongoDB, Git, QuantMiner

Languages: English, working knowledge Norwegian, intermediate Spanish

Interests: Encouraging diversity in STEM and business; AI and Machine Learning; web and mobile application development