# 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

## Greenwich High School, Greenwich, CT

GPA 4.95; ACT 35

Graduated

2018

2020

-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

#### 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.

## Columbia Clinical Informatics Group, Research Assistant

January 2020

- Present

-I work on data processing and developing machine learning algorithms for Dr. Salleb-Aouissi's interdisciplinary machine learning research project. 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.

#### 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.
- -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.

2019

#### **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.

December 2016 -**Present** 

-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.

#### Zaniac Learning, Computer Science and STEM Instructor

June - August

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

2018

-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.

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

December

-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.

2016 - 2018

- -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.

# LEADERSHIP AND ACTIVITIES

Bwog, Technology Contributor & Web Developer

April 2019 -

-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.

Present

-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.

Columbia Pops Orchestra, VP Social on Pops Board & Cello Section Leader -As VP Social, I manage 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

September 2018 - Present

sense of inclusion and growth among the cellists.

## Columbia Debate Society, Varsity Debater & Debate Coach

-Semi-finalist at the 2018 Fordham Debate tournament.

2018 - Present

September

-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.

#### Columbia University Orchestra & Music Performance Program, Cellist

-Performer in Classical Chamber Ensemble and Contemporary Chamber Ensemble

September

2018 - Present

# 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

Languages: English, working knowledge Norwegian, intermediate Spanish

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

application development