Ivy Cao

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EDUCATION

Columbia University, New York, NY *Computer Science* — **August 2019 – May 2023**

Relevant coursework: Advanced Programming in C/C++, Discrete Math, Data Structures in Java, Intro to Computing for Engineers and Applied Scientists in Python, Multivariable Calculus

Technical skills: Java, Python, C, HTML/JS/CSS, Linux, C++, Unity, Git, React, Node.js, MySQL

WORK EXPERIENCE

Bank of America *Global Technology Summer Analyst* — **Jun 2020 – Present**
- Applied data literacy skills to analyze stock data using Excel and Python
- Developing machine learning models using JupyterLab and Python to analyze financial data
- Serve as Cohort Representative for Environmental, Social, and Governance (ESG) Challenge dealing with ESG efforts within the bank

Ardent Academy *Mathematics Instructor* — **Mar 2019 – Aug 2019**
- Taught 50 students for Math Olympiad and AMC8/AMC10 math competitions. Graded assignments and tests. Held office hours to explain/answer questions.

PROJECTS

Spectator Publishing Company *Engineering Associate* — **Feb 2020 – Present**
- Used React.js and HTML/CSS to create the Reviews page of theShaft, an interactive on-campus housing guide for Columbia University students and community.

Columbia University Computer Vision Laboratory *Undergraduate Researcher* — **Sept 2019 – Present**
- Developed Racing Auditory Display, an audio-based blind-accessible interface for racing games
- Wrote C# scripts for in-game onboarding sequence, racetracks, and sonification strategies
- Applied UI/UX design concepts and enhanced accessibility with Unity Accessibility Plugin

High School Coding Projects — **Sept 2015 – May 2019**
- Developed Recover, a mobile app to assist recovering patients with at-home workouts in a user-friendly interface. Included 20+ exercises with accompanying guiding pictures and videos.
- Developed Gradebook, a Java project that allows users to input student grades and view the distribution of grades visually through various statistics presentations.
- Worked on configuring the camera using C and Linux for Irvine01 CubeSat Team, launched successfully in Fall 2018.

ACTIVITIES/LEADERSHIP

General Club Member — **Sept 2019 – Present**
- Women in Computer Science (Event Coordinator), Society of Women Engineers, ADI, CORE.

Jane Street Women in STEM Attendee — **Jul 2019 – Jul 2019**
- Selected as 1 of ~70 attendees for an all-expense paid, three-day program in NYC to attend math, finance, and software development seminars taught by Jane Street employees.

UHS Girls Who Code *President (12th Grade)* — **May 2018 – June 2019**
- Developed club website using HTML, JavaScript, and CSS. Oversaw and managed all operations of the organization. Taught coding in Java, Python, and mobile app development.

OC Math Circle *Executive Board Member* — **April 2016 – May 2019**
- Maintained website, social media accounts, event registration/newsletters via Constant Contact.
- Spearheaded Expii (an online math problem database) initiative, where the committee successfully contributed 1000+ problems in 2 weeks.
- Worked as a lead lecturer and strategically created monthly lecture plans for the 4th-6th grade class.

HONORS AND AWARDS

National Merit Scholarship Winner—one of 7500 winners from 1.6 million entrants — **May 2019**

National AP Scholar—obtained a score of at least 4 on 8 or more AP exams — **July 2018**

Gold President's Volunteer Service Award—100+ hours of community service in one year — **May 2018**

PhysicsBowl Division I *5th National/9th International*—school team from top 5 on exam — **April 2018**

AIME Qualifier—scored in the top 5% nationally on AMC 12 exam — **February 2018**