

EDUCATION

Cornell University — *Bachelor of Science in Computer Science*
GPA: 4.06

Ithaca, NY | Expected: May 2025

- Honors: Dean's List (2022 – 2023: Spring, Fall)
- Relevant Coursework: Object-Oriented Programming & Data Structures, Discrete Structures, Computer System Organization and Programming, Trends in Web Development, Linear Algebra, Functional Programming, Algorithms, Introduction to Machine Learning, Systems Engineering Project

Stuyvesant High School — *High School Diploma*
GPA: 96.8

New York, NY | Sep 2018 – June 2021

- Honors: 2x American Invitational Mathematics Examination (AIME) Qualifier, High Honors in Computer Science, Mu Alpha Theta Honor Society

EXPERIENCE

Software Engineer — *Cornell Cup Robotics*

Ithaca, NY | Feb 2022 – Present

- Translate user speech inputs to text using machine learning and natural language processing as part of the CS Chatbot team for the C1C0 (an R2-D2-inspired robot) project
- Reduce user speech-to-text translation errors by 22% by implementing algorithms using Python, including Levenshtein distance, which compares word similarity
- Demonstrate excellent problem-solving skills when collaborating with peers to program and test software

Tutor and Teaching Consultant — *Engineering Learning Initiatives, Cornell Bowers CIS*

Ithaca, NY | Jan 2022 – Present

- Foster collaborative environments for student engagement as part of the Engineering Learning Initiatives (ELI) program at Cornell Engineering
- Lead and instruct over 20 students in Object-Oriented Programming & Data Structures (CS 2110) and Multivariable Calculus for Engineers (MATH 1920)
- Facilitate CS 2110 discussion classes, assist in exam and assignment grading, and promote student understanding of course materials, software tools, and programming practices

Resident Advisor — *Cornell University*

Ithaca, NY | Aug 2022 – Present

- Lead and inform 40 first-year residents at Clara Dickson Hall on campus events, house rules, and community involvement opportunities
- Work and collaborate with the Dickson residential staff team to ensure resident safety, inclusion, and wellbeing

PROJECTS

Towers of Hanoi — *JavaScript, HTML/CSS, React.js, Three.js, Firebase*

July 2022 – Aug 2022

- Web application and game based on the Towers of Hanoi math puzzle
- Designed and programmed responsive UI, dynamic component behavior, and 3D animations through React.js, react-three/fiber, use-gesture, and react-spring
- Employed OAuth 2.0 authentication and added database to store and fetch user game data using Firebase
- Implemented heuristic algorithms to optimize solution animations to different puzzle variations and constraints

Terrain Map — *Java, Swing, AWT*

June 2022 – July 2022

- 3D visualization tool for popular stochastic algorithms for fractal landscape generation that model Brownian motion, including Midpoint Displacement, Diamond Square, and Perlin Noise
- Developed GUI and implemented custom display features supported by StdDraw, a simple 2D graphics library

Choice Game — *C, ImageMagick*

Jan 2021 – Feb 2021

- A choice-based game run on the terminal that relies on user command-line inputs
- Led a three-member team in project design and coding process employing systems programming concepts: files, pointers, dynamic and static memory allocation, threads, processes, and data structures

SKILLS

Programming Languages: Java, C, Python, JavaScript, Typescript, OCaml, HTML/CSS

Technologies and Frameworks: Git, jQuery, React.js, Firebase