





# Brandon Cheng

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## EDUCATION

**CUNY Queens College, Queens NY**  
Bachelors of Arts in Computer Science

Aug 2020 - December 2024

## EXPERIENCE

### Day & Night

IT/Developer Intern

Apr 2023 – Jul 2023  
New Hyde Park, New York

- Provided IT support to staff in a company of over 50 employees, efficiently troubleshooting, resolving computer issues and assisted in setting up systems for new users for operational readiness.
- Actively contributed to the development and enhancement of a ticketing system mobile app, focusing on user experience and functionality improvements. This led to customers increasingly switching from phone calls to the app, reducing call volume by 25% and enhancing service efficiency.
- Improved code readability and reduced new developer on-boarding time by 50% by refactoring and systematically documenting a previously undocumented and complex codebase. Created comprehensive guides for API usage and data handling processes, enhancing overall team productivity and efficiency.

## PROJECTS

### Huffman Encoding Implementation

Design and Analysis of Algorithms

- Design and implement Huffman Encoding algorithm in Java.
- Debug and troubleshoot algorithm which resulted in reliable compression tool leveraged for large data sets.

### Node.js API Integration Project (Google Sheets & AlphaVantage)

Internet and Web Technologies

- Developed a Node.js application that synchronously integrates Google Sheets and AlphaVantage APIs, displaying real-time financial data within spreadsheets.
- Implemented a three-legged OAuth 2.0 authentication flow for secure access to Google Sheets, adhering to strict project guidelines by exclusively utilizing Node.js built-in libraries.
- Employed HTTP/HTTPS protocols for API communication, demonstrating proficiency in low-level network programming and synchronous API calls.

### AWS Servlet

Internet Security

- Designed and deployed a servlet hosted on AWS that takes in files and saved them onto a MySQL database
- Implemented apache and tomcat onto the servlet for ease of management and configuration
- Used kubernetes to allow for load balancing and scalability

## ACTIVITIES

### FIRST Tech Challenge Team 14212

Mentor

Sep 2022 - Mar 2023  
New York, NY

- Collaboratively mentored a team of ten high school students through multiple competitions, culminating in 5 prestigious awards including Best Design.
- Guided the team as they competed against over 30 teams from across New York City and New York State, achieving an undefeated record to become Regional New York Champions.
- Success in regional competitions qualified the team to represent New York at the World Championship, where they competed against international teams, showcasing their global engagement.
- Taught technical skills with an emphasis on leadership and teamwork, fostering a collaborative and knowledgeable team environment.
- Engaged in community outreach, impacting over 100 underprivileged children by promoting STEM education through interactive presentations and workshops.

## TECHNICAL SKILLS

**Programming languages:** C++, Java

**Web Technologies:** HTML, CSS, JavaScript

**Miscellaneous:** MySQL, AWS, Git

## RELEVANT COURSEWORK

**Computer Science:** Intro to Algorithmic Problem Solving, Object-Oriented Programming in C++, Object-Oriented Programming in Java, Discrete Structures, Computer Organization and Assembly Language, Data Structures, Theory of Computation, Computer Architecture, Design and Analysis of Algorithms, Database, Software Engineering, Principles of Programming, Internet and Web Technologies, Operating Systems, Post-Quantum Cryptography, Computability and Complexity, Internet Security

**Mathematics:** Discrete Math, Calculus, Linear Algebra, Probability and Statistics