

Bowen Cheng

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EDUCATION

Northwestern University

Evanston, IL

Master of Science in Computer Science | Bachelor of Science in Computer Science; GPA: 3.954

June 2027

Walter Payton College Preparatory High School

Chicago, IL

Highschool Diploma; GPA: 4.0

Sep. 2019 - June 2023

PROJECTS

Open Street Map Processing | C++

- Developed a navigation application leveraging Open-Source Maps (OSM) to provide data regarding closest bus stops and real-time bus arrival predictions
- Used TinyXML and C++ to parse OSM data, integrated Chicago Transit Authority's online API to dynamically fetch bus arrival predictions

nuPython | C

- Created a Python-like language experience using C
- Implemented core features of nuPython, including creation of execution environment to handle basic computation tasks and print statements
- Demonstrated proficiency in dynamic memory allocation for nuPython variables and values
- Gained experience in unit testing methodologies

Design Thinking and Communication Course: ToddlerBand

- Collaborated with a physical therapist in the Shirley Ryan Ability Lab to develop attachment methods for toddler gait-tracking technology
- Organized and communicated with 4-person team to ensure timely completion of project

ACTIVITIES

Counselor at Fulton Summer Music Academy

2021 - Present

- Furthered time management and leadership skills as counselor - balanced managerial responsibilities while practicing 4 hours of violin daily and engaging in music theory classes, orchestral and chamber rehearsals, performance and techniques classes, and lectures
- Played for master clinicians Jorja Fleezanis, Alena Baeva and Augustin Hadelich

Violinist with Fulton in Residence

2021 - 2023

- As a touring musician with Fulton in Residence, developed strong interpersonal skills, live performance ability, flexibility, and professionalism
- Soloed in Oaxaca, Mexico; Ho Chi Minh City, Vietnam with Imagine Philharmonic Orchestra; Honolulu, Hawaii with University of Hawai'i Orchestra

First Violinist in Chicago Youth Symphony Orchestra

June 2020 - 2023

- Cultivated discipline, commitment, and time management abilities through rigorous rehearsals and performances in Chicago's most prestigious venues

Competitive Math

2019 - 2023

- Sharpened problem-solving skills and developed perseverance to work through challenging problems
- Learned to communicate complex math subjects effectively during spoken math competitions
- Awards: AIME Qualifier; 1st individually in ICTM; 1st place McCarthy-Murzyn award from City of Chicago Math League; Semifinalist for Modeling the Future Challenge

Mathnasium Tutor

Feb. - Dec. 2023

- Enhanced communication, patience, adaptability, and the ability to simplify complex concepts

Leukemia and Lymphoma Society, Students of the Year

2019 - 2020

- Led a 10+ person team in raising over \$45k in 8 weeks for the Leukemia and Lymphoma Society
- Gained skills in leadership, teamwork, communication, fundraising, and project management

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, Racket