

William Gao

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EDUCATION

Stony Brook University

August 2020 - Dec 2023

B.S. in Computer Science, GPA: 3.98

- Relevant coursework: Data Structures, Programming Abstractions, System Fundamentals I/II, Theory of Computation, Analysis of Algorithms, Compiler Design, Computer Networks
- Extracurriculars: Member, Women in Computer Science;

Brooklyn Technical High School

September 2016 - June 2020

Software engineering major, GPA: 98.61%

- Graduated with an NYC Advanced Regents Diploma

PROJECTS

Evo

June 2022 - Present

Co-Author

- Collaborated with a peer in constructing a compiler intended to target x86 in Ocaml
- Designed a module and type checking system that allowed for function shadowing and overloading
- Increased code coverage by fifty points by designing and writing test cases verifying the AST
- Iteratively reevaluated project goals and language features in face of time constraints

BetterChatRoom

June 2020 - September 2020

Author

- Built a chat room web application using MongoDB, Express, and Nodejs
- Deployed the server on Heroku and the database on MongoDB Atlas
- Collaborated with a peer to utilize Socket.IO in implementing real-time messaging

Jaengine

January 2020 - July 2020

Author

- Constructed a rudimentary physics engine in Java and JavaFX
- Designed a modular system that promoted multithreading programming
- Collaborated with peers to solve problems related to collision detection

WORK EXPERIENCE

Stony Brook University Computer Science Department

Stony Brook, NY

Teaching Assistant, Analysis of Algorithms

February 2022 - May 2022

- Held regular in-person office hours to offer intuition behind homework questions and course content
- Administered and proctored the course midterm and final
- Acted as a channel of communication between students and course instructor

JEI Learning Center

Brooklyn, NY

Instructor

July 2021 - August 2021

- Taught the SHSAT to seventh graders over six weeks and saw a 100% score increase
- Fostered a friendly classroom environment and encouraged a growth mindset
- Organized, assigned, and graded student material

AWARDS

- Received AP Scholar with Distinction and National AP Scholar
- Awarded Dean's List for all semesters at Stony Brook

TECHNICAL SKILLS

- Languages - Ocaml, Java, Javascript, C, Node.js, Prolog, Python, HTML/CSS
- Frameworks/Libraries - React, Express, Socket.IO, Flex, Bison, JavaFX
- Technologies - Visual Studio Code, Git, Emscripten, Dune, Make