

# Zhiyang Zuo

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## EDUCATION

### University of Massachusetts Amherst

Amherst, MA

*Candidate for Bachelor of Science in Computer Science, Minor in Mathematics*

*Expected Graduation: May 2024*

Courses: Introduction to Algorithms, Operating Systems, Search Engines, Artificial Intelligence, Computer Networks, Make: Physical Computing, Programming Methodologies, Computer Systems Principles, Reasoning Under Uncertainty, Introduction to Computation

### Bunker Hill Community College – Dual Enrollment

Boston, MA

## PERSONAL PROJECTS

### Personal Website (<https://zzuo123.github.io/>)

*January 2021 – Ongoing Project*

- Programmed using JavaScript, HTML, SASS to showcase personal projects and experiences.
- Utilized JavaScript libraries such as swiper.js to deliver a smooth user experience.
- Improved my UI design skill by learning and using the Figma software to design the website.

### Daily App (<https://daily-app-tw2d.herokuapp.com/home>)

*December 2020 - January 2021*

- Created a Python Flask web app and deployed it on Heroku to help users keep diaries and track weather and time.
- Utilized Open Weather Map API and python request module to retrieve accurate weather data based on zip code.
- Designed and implemented a data model to store and query user data efficiently on a remote PostgreSQL database.
- Implemented email-based authentication and password hashing and salting to ensure user account security.
- Utilized the Bootstrap framework and CSS media queries to make the website interactive and mobile responsive.

## WORK EXPERIENCES

### Manning College of Information and Computer Sciences

Amherst, MA

*Undergraduate Course Assistant, CS377 Operating Systems*

*September 2022 – Present*

- Hosted semiweekly office hours where I answered students' questions about the course materials and assignments.
- Assisted in hybrid teaching by relaying zoom chat to professor during semi-weekly lectures and answering questions online.
- Collaborated 8 other UCAs to grade 150+ students' assignments and labs within 1 week from the deadline.

### Stoke Therapeutics

Bedford, MA

*Bioinformatics Summer Intern, Platform Discovery Department*

*June 2022 – August 2022*

- Collaborated with a team of scientists to implement an RNA-Seq QC pipeline using AWS, Docker, and Snakemake to automate the processing of RNA sequencing data in the TB scale and generating of dynamic visual reports.
- Performed tests to assess the efficiency of popular RNA-Seq QC tools and developed a python script to automatically configure AWS cloud computing resources for the pipeline based on input size to minimize cost and maximize efficiency.
- Participated in weekly team meetings to report progress, discuss roadblocks and solutions, and to give and receive feedbacks.

### Biogen

Cambridge, MA

*Summer Intern, Technical Product Complaint Department*

*June 2021 - August 2021*

- Designed and implemented a product defect knowledge wiki on Confluence with a global team of subject matter experts that improved team efficiency by 15% and enabled the department to retain key knowledge essential for team functioning.
- Created Python program to extract common wordings from past 10k+ customer complaints for new-hire training.
- Automated an excel index match process using Python and the Pandas library to standardize data processing and reduced time required to generate the monthly report by 1 hour.

### Malden YMCA

Malden, MA

*Zero-Robotics Program Instructor*

*June 2019 – July 2019*

- Co-taught programming and physics to 30+ elementary school students to prepare them for the Zero Robotics state competition in which they placed 2nd and 3<sup>rd</sup>.
- Oversaw 2 hands-on projects and 1 field trip to ensure student safety and facilitate their learning.

## ACTIVITIES

### Advent of Code (Global Annual Coding Challenge)

Online Event

- Participated virtually in daily coding challenges to improve competitive programming skills
- Ranked top 15% in the UMass Amherst student leaderboard

*December 2020&2021*

## SKILLS

**Programming language:** Python (advanced), Java (advanced), C (intermediate), JavaScript (intermediate), SQL (intermediate)

**Frameworks:** Node.js, PostgreSQL, Flask, Bootstrap, REST API

**Technology:** Version Control (Git & GitHub), Unit Testing, Heroku, Bash Script, Figma, Raspberry Pi, Confluence

**Language:** English (proficient), Mandarin (native), Cantonese (native) Spanish (intermediate)