

George Zhang

(he/him/his)

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Education

University of Massachusetts Amherst

Candidate for Bachelor of Science in Computer Science

Expected Graduation: May 2025

GPA: 4.0/4.0

Elective Courses: Web Developing, Theory and Practice of Software Engineering, Practice and Applications of Data Management, Machine Learning

University of Massachusetts Boston

Candidate for Bachelor of Science in Computer Science

Sept 2020 - Dec 2022

GPA: 3.98/4.0

Elective Courses: Higher Level Languages, Probability and Statistics

Experience

Pathway: Web Development

Feb 2024 - Apr 2024

Codepath

- Gaining experience in architecting React applications and Web API from attending 2-hours weekly online courses
- Spending 6 hours on average on completing weekly assigned React project by utilizing the skills and Web API that were taught in the courses

Projects

Ice Queb Office Hour Queuing App | React, TypeScript, JavaScript

Feb 2024 - Mar 2024

Collaborated with 3 other students to create a cross-platform mobile office hour queuing app

- Contributed to the development of the app, focusing on backend server architecture using Express framework and middleware implementation to handle HTTP requests from both student and faculty interfaces
- Established a Socket.io server to enable real-time updates on office hour statuses, enhancing user experience
- Leveraged MongoDB for database functionality, managing students and faculties' accounts and office hour sections
- Implemented Jest unit tests to validate the functionality of backend endpoints
- Designed and developed the login, signup, and home page of the faculty-end interface using React
- Created routers for the faculty-end website to manage navigation

Password Generating and Storing Web Application | HTML, CSS, JavaScript

Nov 2023 - Dec 2023

Created a Web application that generates passwords based on user's preference and stores the result in database.

- Developed a password generator in a form of SPA (single-page application) that allows users to generate passwords based on customizable password settings
- Implemented a strength slider feature which enables users to effortlessly select the complexity levels of their generated passwords
- Utilized MongoDB to perform database functionality to save the generated passwords with optional custom names
- Designed and implemented simple user authentication for security
- Established password management for users which enables them to operate (view, copy, update, and delete) their saved passwords

Genetic Sequence Similarity Comparison | Java

Apr 2022 - May 2022

Designed a program to measure the similarity of two genetic sequences by their edit distance

- Utilized recursive scheme for computing the edit distance of the two sequences
- Reduced the time complexity from $O(2^n)$ to $O(n*m)$ by using dynamic programming approach

RSA Cryptosystem | Python

Sept 2020 - Nov 2020

Implemented the RSA public-key cryptosystem

- Implemented a library that supports core functions needed for developing the RSA cryptosystem
- Created programs for encrypting and decrypting messages using RSA

Technical Skills

Languages: JavaScript, TypeScript, HTML, CSS, React, SQL, Python, Java, C, Racket, Coq, R

Development Tools: VSCode, IntelliJ, PyCharm, DrRacket, RStudio

Language Skills

Mandarin - Native Proficiency

English - Professional Working Proficiency