

Tom Zhu

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Education

Carleton University | Bachelor of Computer Science Honours, Minor in Statistics 2019 - 2024

- **12.0 / 12.0 Cumulative GPA**, Faculty Entrance Scholarship, Dean's List, Computer Science Award
- Relevant Coursework: Discrete Structures I, Introduction to Mobile Application Development, Introduction to Computer Science I & II, Introduction to Statistical Modeling I, Linear Algebra, Elementary Calculus I
- Awards: Faculty Entrance Scholarship, Dean's List, Computer Science Award

Projects

Carleton Timetable Generator github.com/zhu-tom/Course-Registration

JavaScript, jQuery, Bootstrap, Python, Flask, BeautifulSoup

- Architected a web application that displays all possible timetables given a list of course codes to expedite the course registration and timetable creation process. Implemented filters, saving timetables, and viewing professor ratings.
- Created Python scripts to scrape lecture sections and corresponding tutorials off of the public class schedule using MechanicalSoup and enumerate the possible combinations for the given filters.

Fast Food Haven github.com/zhu-tom/Fast-Food-Haven

JavaScript, jQuery, Python, Flask, BeautifulSoup, Google Maps API, UIPath

- Led a team of 4 to create a web-scraping Flask application that serves as a hub for fast food coupons and deals.
- Accessed Geolocation and Maps API to attach distance and map links to the nearest restaurant for simple navigation. Designed a clean and intuitive front-end with jQuery to allow for effortless usage.
- Contrived API to scrape data into JSON for front-end usage, formed Flask app structure and endpoints for routing.
- **Winner of Best Hack Using UIPath at cuHacking 2020**

Carleton Volleyball Club Website zhutom.com/cuvb-source

JavaScript, Node.js, Express.js, MongoDB, React, Gatsby, GraphQL, SCSS

- Developed a MERN stack application used by the Carleton Volleyball Club as a homepage and event registration system. Created front-end in React and Gatsby, Lodash to throttle inputs, and GraphQL to access static data.
- Produced user authentication services, event database CRUD operations, website administration tools with MongoDB and Express.js. Utilized Nodemailer to construct mailing from the admin side to users.

Speed Mingling App github.com/zhu-tom/Viber

Android, Java, Firebase, WebRTC

- Designed an Android application that connects users for anonymous video or text chat using a queue. Created an option to send and accept friend requests after the chat ends to allow for future communication.
- Synced video and audio streams using WebRTC Peer Connections. Stored, authenticated, and queued users, facilitated text chat, and exchanged offer/answer SDP and ICE candidates in Firebase.

Experience

Software Engineering Fellow | Harled Inc. Aug 2020 - Present

- Coordinated and collaborated with a team of fellows as Project Lead and full-stack developer to create a Flight Mapping System built for Harled Inc. in React, MongoDB, and OpenStreetMap.

Peer Mentor - Computer Science Team | Science Student Success Centre Jun 2020 - Present

- Supported and motivated first-year student mentees with resources, workshops, and mentoring sessions geared towards attaining their personal and professional goals and succeeding in university and the Faculty of Science.

Quality Assurance Analyst | Hot Glue Games Jul 2018 - Aug 2018

- Documented and verified bug reports in Azure DevOps and created and executed thorough test plans to ensure optimal functionality. Responsible for creative input for new features and improvement for greater user experience.

Skills

Programming Languages: Python, Java, JavaScript, Swift, PHP, C, SQL, GraphQL

Frameworks/Technologies: Flask, BeautifulSoup, jQuery, React, MongoDB, Gatsby, Node.js, Express.js, JavaFX, WebRTC, Firebase, OAuth 2.0, REST API, Azure DevOps, Git, OOP