

# ZHUOXIANG (SAM) XIE

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## EDUCATION

Bachelor of Chemical Engineering, McMaster University, Ontario, Canada

Jun 2019

## LANGUAGES, FRAMEWORKS & TOOLS

JavaScript, Python, TypeScript, Java, C, HTML, CSS, React.js, PostgreSQL, MongoDB, Node.js, Express.js, Django, Flask, D3.js, Git, AWS EC2, Cognito, Docker

## EXPERIENCE

### Software Engineer

Uberflip, Permanent-Full Time, Toronto

Nov 2021 – Present

- Involved in optimizing the user interface of the Uberflip Content Management Tool through the integration of JavaScript History API with React.js making sure user inputs are preserved after page change/refresh
- Participated in the final stage of data table state handling beta release through the removal of old PHP template files to increase the maintainability of codebase
- Responsible for the backend design of a UI renovation project by restructuring business logics on Laravel controller files

### Software Developer

Avybe, Contract Full-Time, Toronto

Mar 2021 – Sep 2021

- Constructed and optimized the backend architecture using Django REST framework for the auction bidding feature of company's main product with good understanding of object-oriented design pattern
- Demonstrated solid understanding of frontend web development when working on full stack API integration
- Rebuilt user authentication system using AWS Cognito and migrated existing user base into Cognito's Userpool

## PROJECTS

### Big-O Simulator (React.js, D3, Redux) [Demo](#)

- Visualizing the time complexity of different sorting algorithms using frontend frameworks Redux, React.js integrated with D3.js
- Reconfiguration of sorting algorithms based on React Hook rendering pattern to generate the corresponding automation behaviours

### Irrigation Panel (React.js, Node.js, MongoDB, Google Maps API) [Demo](#)

- Utilization of multiple 3<sup>rd</sup> party APIs, OpenWeatherMap API, Google's Maps JavaScript API and Stormglass Marine Weather API
- Optimized the asynchronous feature of JavaScript in integrating large geolocation JSON file with Google Maps JavaScript API to produce dynamic weather predicative zones using wind direction
- Forecasted weather condition 4 hours ahead of time with an average 15% increase on prediction accuracy

### Physicians Talking to Patients (Node.js, Socket.io, Express.js, PostgreSQL) [Code](#)

- A web-based tool designed for enhancing the remote communication between physicians and patients while enabling users from both ends to keep track of diagnosis/prognosis information through an organized format
- Database architecture design with 6 data tables using PostgreSQL
- Practiced authentication and security design using express session in the application to improve its reliability and to protect users' personal data

### Image Store (Python, Django, PostgreSQL) [Code](#)

- An application that serves primarily as an image storing platform
- Successful integration of Django template with frontend JavaScript for UI design
- Incorporated format conversion in database design to minimize the performance latency of the application