

ZHUOXIANG (SAM) XIE

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EDUCATION

Bachelor of Chemical Engineering, McMaster University, Ontario, Canada

Jun 2019

LANGUAGES, FRAMEWORKS & TOOLS

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

EXPERIENCE

Software Developer

Avybe, Contract Full Time, Toronto

Mar 2021 – Current

- 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

Web Developer

LineDots Web Development (Open-Source Projects), Richmond Hill

May 2019 – Feb 2021

- Web design for H&L Premium Auto Service's homepage and portfolio page for university students
- Application deployment and cloud computing platform AWS configuration (mainly EC2, JavaScript SDK, Secret Manager, System Manager)

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 3rd 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
- Implemented live chat/video features to enhance the quality of interaction between doctors and patients

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