

ZHUOXIANG (SAM) XIE

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EDUCATION

Bachelor of Chemical Engineering, McMaster University, Ontario, Canada

June 2019

LANGUAGES, FRAMEWORKS & TOOLS

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

RECENT PROJECTS

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

- Visualizing the time complexity of different sorting algorithms using the front-end framework
- Extensive practice on React Hook and D3.js data analytic tools

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

- Utilization of multiple 3rd party APIs, OpenWeatherMap, Google's Maps JavaScript API and Stormglass's Marine Weather API
- Data visualization in displaying wind direction on Google Maps and wind speed using analog dashboard
- Forecasting weather condition 4 hours ahead of time for gardening irrigation based on live weather data
- Storing info such as user id, utility rate, geographical location on backend

Physicians Talking to Patients (Node.js, Socket.io, Express.js, PostgreSQL)

- A web-based communication tool for patients to update symptom progression and for doctors to give online diagnosis based on available information
- Database architecture design with 6 data tables using PostgreSQL
- Practiced good security design in the application to protect users' personal data
- Implemented live chat/video features to enhance the quality of interaction between doctors and patients
- Email notifying/scheduling system design based on diagnosis urgency and severity

The Voting App (Node.js, Express.js, D3, MongoDB)

- An application that can track info such as polling number, voting record and personal id
- Database schema setup using Mongoose with the aid of JavaScript based back-end tools
- Data visualization using D3, displaying info such as voters' age and demographic groups

EXPERIENCE

Web Developer

LineDots Web Development (Open Source and Freelance Projects), Richmond Hill

May 2019 - Current

- Active involvement in freelance web development through complete self-directed learning
- Web design for H&L Premium Auto Service's homepage and a portfolio page for university students
- Offered mobile compatible and responsive web design to optimize user experience

Halton Region Engineering Project Coordinator (Coop Position)

Halton Region, Oakville

Jan 2018 - Dec 2018

- Review engineering drawings, single line diagrams, PFD, and P&ID
- Electrical I/O configuration and process control signal & interlock hierarchy validation
- Draft standard operation manual using technical communication skills