

Mark Toh

SOFTWARE ENGINEER, FULL STACK

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EDUCATION

University of Wisconsin-Madison

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Madison, WI

Fall 2018

Skills

Fullstack MERN (MongoDB, Express, React, Node)

Frontend JavaScript, HTML, CSS, Redux, Sagas, Leaflet, D3.js, Plotly.js, Jest, Cypress

Backend Node, Python, Go, SQL

Software Heroku, Github, Adobe XD

Experience

DataChat - Dashboard

Madison, WI

SOFTWARE ENGINEER - REACT, REDUX, SAGAS, GO, PYTHON, POSTGRESQL

June 2019 - PRESENT

- Developed a self-service business intelligence cloud dashboard for analyzing, visualizing, and sharing big data.
- Drafted client/server architecture user flow to document high level goals.
- Leveraged third party APIs and Python scripts to automate data collection pipeline.
- Designed user interface for dashboard selection menu and dashboard display.
- Managed dashboard CRUD functions through database operations in PostgreSQL.
- Supported dashboard sharing across users within an organization via React components, AJAX calls, and Go routes.

DataChat - Messenger

Madison, WI

SOFTWARE ENGINEER - REACT, REDUX, SAGAS, GO, PYTHON, POSTGRESQL

Jan 2019 - June 2019

- Developed a web messenger that uses a natural language chat interface for data analytics.
- Incorporated React-Redux container and Redux selector patterns to architect highly scalable front-end state management that enabled access to messages, charts, and user information.
- Applied Redux-Saga middleware to organize asynchronous logic, reducing mental overload.
- Constructed component library for reusability and company branding.
- Integrated Leaflet.js with geomapping to display listings on map.
- Implemented responsive charts using Plotly.js to showcase data findings.
- Led a team of engineers to deliver onboarding software to reduce onboarding labor.

DataChat

Madison, WI

SOFTWARE ENGINEER INTERN - REACT, REDUX, SAGAS, GO, PYTHON, POSTGRESQL

May 2018 - Dec 2018

- Improved application usability by redesigning UI.
- Embellished application by tuning cursor and transition effects.
- Enabled file upload and deletion by developing a file manager in React and Go.
- Engineered an end-to-end test automation framework using Jest and Cypress based on Unit Testing, Regression Testing and Behavior Driven Development (BDD).

Projects

Open Formula 1

marktoh.github.io/open-f1

WEB DEVELOPER - REACT, LEAFLET, FORMULA ONE API, HEROKU

- Developed a web application for tracking circuits across Formula 1 seasons.
- Mapped locations of 1400 circuits across 60 years using React, Formula One API, and Leaflet.

Email Feedback Collector

SOFTWARE ENGINEER - MERN, SENDGRID, OAUTH, STRIPE, HEROKU

- Developed a paid email survey service for collecting user feedback.
- Built using MERN, mongoose, passport.js, and deployed on Heroku.
- Implemented an easy-to-use login system with Google OAuth and passport.js.
- Designed schema and integrated database system using Mongoose and MongoDB.
- Generated revenue by implementing a credit-based billing service using Stripe API.
- Automated email delivery with SendGrid, coupled with webhooks to monitor user feedback.