Mark Toh

SOFTWARE ENGINEER, FULL STACK

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EDUCATION

University of Wisconsin-Madison   *Madison, WI*
BACHELOR OF SCIENCE IN COMPUTER SCIENCE   *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.
- Consolidated communication portal by documenting high-level plans on shared technical design documents.
- Provided 360-degree customer views with an automated data collection pipeline and third-party API connectors in Python.
- Streamlined user flow with a clean interface design for creating, editing, saving, and viewing dashboards.
- Bolstered collaborative work by supporting dashboard sharing across customers.
- Established business logic using Go endpoints to manage dashboard connections to a PostgreSQL database.

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.
- Established company brand and reduced development time by constructing a custom React component library.
- Successfully conveyed federal level manufacturing information in a geomap using Leaflet.js.
- Expanded market reach to mobile and desktop users by supporting cross-browser data visualizations in Plotly.js.
- 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.
- Structured asynchronous logic and side effects by applying Redux-Saga middleware.
- Significantly reduced manual labor costs by leading a team of engineers to deliver onboarding software.

DataChat   *Madison, WI*
SOFTWARE ENGINEER INTERN - REACT, REDUX, SAGAS, GO, PYTHON, POSTGRESQL   *May 2018 - Dec 2018*

- Modernized look of application by conducting market research, drafting wireframes, and implementing UX/UI designs.
- Polished user experience after tuning through 50 nuances of animation effects.
- Granted users access to store 50gb worth of data using a fullstack file manager in React and Go.
- Saved 30% of software development cycle time by engineering 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.