

# 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 dashboard for monitoring data in business intelligence and business analytics applications.
- Leveraged third party APIs and Python scripts to automate data collection pipeline.
- Drafted client/server architecture user flow to document high level goals.
- 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 card menu 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](https://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.