Michael
Trapani

Software Engineer

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SKILLS & TECHNOLOGIES

Languages: JavaScript (ES6+), HTML, CSS/SASS, SQL, GraphQL

Libraries and Frameworks: React, Redux, Material-UI, Node.js, Express.js, Mongoose, Jest, TypeScript

Tools: Git, Webpack, Docker, AWS, CI/CD

DBMS: MongoDB, PostgreSQL

EDUCATION

Codesmith

Advanced Software Residency Program

Stevens Institute of Technology

ME, BE Biomedical Engineering

Cert. in Project Management

TALKS & PUBLICATIONS

Popular Frontend Frameworks: A Discussion on Angular, Vue, and Svelte

Single Sprout

SQuriL: Generate and Store Your GraphQL Schema

Medium.com

INTERESTS

Running in local races

Traveling to hiking destinations, both international and domestic

Reading classic and contemporary science fiction

Playing RPG, strategy, simulation games

EXPERIENCE

SQuriL | *GraphQL schema generation tool for PostgreSQL databases*   2022

Frontend Software Engineer | Open Source Labs

- Developed **GraphQL** schema generation tool that creates production-ready GraphQL schemas with TypeScript typing from a PostgreSQL database, improving dev velocity
- Used **React** to leverage the virtual DOM's speedy reconciliation process coupled with reusable and accessible components handling large state updates, necessary for seamless display of complex GraphQL schemas for optimal user experience
- Leveraged **Material-UI** to present an accessible interface and facilitate ease of integration with existing React components, implementing theme-setting functionality to create palettes, as well as developed light and dark mode styling
- Architected **Express** backend for its customizable and chainable middleware capabilities to read and process **PostgreSQL** databases and return GraphQL schemas for use with Apollo server to display on the application frontend
- Integrated support for **TypeScript** codebases via the robust plugin library available with GraphQL Code Generator by automatically populating GraphQL schema output with base TypeScript types consistent with database schema structure
- Utilized the compatibility of **Jest** and **React Testing Library** to create a testing suite for 100% of all key application components, ensuring a reliable engineering environment, higher quality of code, and easier future feature integration

OPEN SOURCE

GitGood | *Learning tool that stores online resources in customizable categories*

- Built a lightweight SPA with **React** that allows users to create, update, and display customizable topic and subtopic study flashcards, leveraging component state management via hooks to generate a seamless user interface
- Applied **SASS** to create consistently-themed and accessible styling for frontend dashboard display and flash cards, paired with a robust component and icon library to produce a visually appealing, clean and readable study interface
- Architected an **Express** server utilizing customized middleware, routing, and error handling to manage a scalable volume of users to handle different HTTP requests to endpoints for topic and subtopic study flashcard editing

NutritionX | *Nutrition tracker that allows users to track their meal nutrition info*

- Utilized **React** to manage tech debt by refactoring legacy components to accelerate dev velocity and quickly and dynamically display nutritional information fetched from an external nutrition API
- Appended and refactored an **Express** server with additional routes and endpoints that allow users to save their favorite meals, well as display filtered saved meals to a redesigned and reformatted frontend display for enhanced user experience

GoodWatch | *Movie library platform for leaving ratings and reviews, and saving movies*

- Designed frontend codebase using **React** and **Redux Toolkit** to leverage built-in Redux Thunk functionality to perform asynchronous data fetches via GraphQL queries and dispatch async actions from a single, easily readable location