# Michael Trapani

Software Engineer

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New York NY 🙎

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## **EXPERIENCE**

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

#### 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