

Robert Howton

Full-Stack Software Engineer | New York City

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Technical Skills

JavaScript (ES6+), TypeScript, React (incl. Hooks, Router), Redux (incl. Toolkit), Vue, HTML5/CSS3, Node.js, Express, SQL (PostgreSQL), NoSQL (MongoDB, Redis, LokiJS), GraphQL, OAuth 2.0, Webpack, Git/Github, TDD (Jest, Supertest, Enzyme, React Testing Library, Playwright), AWS, Docker, Travis-CI, Python, LaTeX, Emacs (Org-Mode, Emacs Lisp)

Experience

Software Engineer | Quell (OS Labs)—GraphQL caching library 2021–Present

- Created Quell Developer Tool, an extension leveraging Chrome's devtools API to enable monitoring and management of Quell's GraphQL query caching in client (browser using LokiJS) and server (Redis via Node.js/Express middleware)
- Utilized React Hooks to manage state according to MVC design pattern, coordinating updates of related pieces of state and eliminating unnecessary re-renders for seamless provision of up-to-date cache and GraphQL query data
- Incorporated TypeScript to enforce type safety and define custom data structures, promoting faster pre-production error detection and enhancing codebase stability and self-documentation for future open-source contributors
- Enabled fetching of user-specified data from server-side Redis cache through custom configurable Express middleware, enabling debugging and testing of Quell's cache invalidation policy with minimal user configuration
- Composed GraphQL schemas and resolvers to connect to remote databases and RESTful APIs as part of a full-stack development environment employing Quell with a React client and a Node.js/Express server
- Developed unit and integration tests using Jest with React Testing Library and Supertest in order to avoid undesirable side-effects, promote product scalability, and ensure codebase integrity for future development
- Automated testing in a continuous integration pipeline using Github Actions, protecting future Quell releases against breaking pull requests to its production or development branches
- Open source product developed under auspices of technology accelerator OS Labs (opensourcelabs.io)

Lecturer, Assistant Professor of Philosophy | University of Pittsburgh, Koç University 2016–2021

- [Lectured](#) and [published](#) internationally on advanced topics in philosophy and the history of logic and formal languages
- Designed Vue/Django-based web application with digital humanities firm Eldarion, working as a principal collaborator on the Open Plato Project and with funds granted by Princeton University
- Automated generation and distribution of lecture notes, slides, and handouts using Emacs' Org-Mode, Pandoc, LaTeX, Github Pages and a static site generator (Hugo) from a single source file, improving efficiency and reducing labor hours

Education

PhD, Philosophy | University of Toronto (GPA: 4.0) 2017
MA, Philosophy | Texas A&M University (GPA: 4.0) 2010
BA (Honors), Philosophy, Ancient Greek | Louisiana State University (GPA: 3.7) 2008

Open Source Projects

Software Engineer | Collector—Discogs client for music collectors

- Leveraged React with Hooks to create the first responsive, state-managed client to allow Discogs users to view, sort, and queue items in media collections, enhancing UX of users who rely on Discogs to manage their personal collections
- Authored modular Node.js/Express server with controllers dedicated to authentication and CRUD requests against the Discogs API, to separate unrelated components of server logic and promote clarity and maintainability of codebase

Software Engineer | Flashfriend—Mobile-optimized flashcard application

- Built and deployed relational database to manage user data, ensuring ACID compliance while maximizing security through parameterized SQL queries from the server-side API
- Utilized Redux Toolkit to consolidate state logic and centrally manage synchronous and asynchronous update actions, allowing for predictable flow and distribution of data to app components from a single source of truth

Interests

Crate-digging for 70s Herbie Hancock releases; trying to reconcile physicalism with natural teleology, and primitivism with perceptual illusion; exploring ancient ruins, from the Aegean to the Yucatan; finding the marvelous in all of nature*; practicing ashtanga yoga; sampling Croatian whites, German reds, and varietals from emerging wine regions worldwide

*Aristotle, *Parts of Animals* 645a16–17