Hannah Bernstein

Software Engineer

Los Angeles, CA • hbern00@gmail.com • (661) 621-1772

linkedin.com/in/bernstein-hannah/ • github.com/hbernie • https://hbernie.github.io/personal-website/

TECHNICAL SKILLS

- **Strong**: JavaScript (ES6+), HTML5/CSS3/Sass, Material-UI, React Hooks, Node.js/Express, SQL & NoSQL Databases, GraphQL, RESTful API, Redis, Git/Github, TDD (Jest, Puppeteer, React Testing Library), CI/CD Pipeline
- **Experienced**: TypeScript, Python, C++, Redux, Auth (JWT, bcrypt), webpack, NumPy, Pandas, Tailwind

EDUCATION

Codesmith

Advanced residency for Software Engineering   *Los Angeles, CA*

August 2022 - November 2022

- Immersive training program involving daily pair programming, scratch and iterative development of full-stack projects; introduction to numerous programming languages, libraries, and frameworks

University of Colorado Boulder

B.A. Computer Science   *Boulder, CO*

August 2018 - May 2022

- Relevant Coursework: Computing (C++), Data Structures, Algorithms, Software Development Methods & Tools, Database Systems, Data Science, Computer Systems, Principles of Programming Languages, HCI, Computer Graphics

EXPERIENCE

LatchQL - An open source, npm middleware package that adds additional layers of security with customizable configuration for role-based authorization of GraphQL APIs.

Software Engineer   *2022-Present*

- Employed Express middleware design pattern to intercept incoming requests to the GraphQL endpoint and subsequently apply custom limiting rules that prevent costly or potentially dangerous GraphQL queries from executing
- Developed a locally hosted GraphQL playground as a developer tool to test GraphQL queries using npm package before going live with permissions that are dynamically read from a configuration file
- Utilized React to create stateful, reusable, and easily-readable components and containers to be deployed on the GraphQL Playground GUI
- Used JWT to authenticate and authorize users using a generated token to maintain accurate distribution of permission levels without needing further access to the developer's user database
- Leveraged TypeScript and its use of static typing to avoid type errors becoming vulnerabilities while enforcing efficient and detailed logic throughout development leading to better development scaling
- Implemented Redis as a caching service to temporarily store user's cost analysis by user IP address to apply a role-specific rate limiter
- Executed Test Driven Development with Jest to maintain and anticipate functionality for completed and developing features
- Product formulated under tech accelerator Open Source Labs (opensourcelabs.io)

OPEN SOURCE CONTRIBUTIONS

What In The World? - *A geography trivia "edutainment" game*   *Fall 2022*

- Used React Hooks to facilitate component logic reusability, leading to a cleaner codebase for improved maintainability
- Prioritized Test Driven Development with Jest to identify the most succinct request and response required for optimal efficiency and to prevent REST API from over- and under-fetching throughout development

Meet Me at the Spot - *A location-based social media platform that allows users to share public or private posts based on a specified location*   *Fall 2022*

- Expanded on a relational SQL database to support one-to-many relationships between users and the locations they create or view by category; adding access to upload photos under each post
- Implemented a user authentication workflow to securely hash sensitive input data using bcrypt and creating storage sessions with cookies for persisting data between logins

Receipt - *An expense-tracking app that enables users to easily split and track bills among any number of individuals*   *Summer 2022*

- Utilized React to create reusable components for ensuring modularity and scalability for seamless addition of future features
- Built and maintained a PostgreSQL database for storing user's purchases and calculating accurate prices for each merchant through a reliable and ACID compliant transaction

INTERESTS & HOBBIES

Web3 | Trivia enthusiast | Open source collaborator | Hiking + Camping + Snowboarding | Pianist | Yoga + Mindfulness | Martial arts | Animal lover