Victor He
SOFTWARE ENGINEER

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SKILLS

Strong: JavaScript (ES6+), TypeScript, React, Next.js, Node.js, Express.js, REST API, SQL, NoSQL, Postman, Git, AWS (S3, EC2, DynamoDB, Lambda, Route 53), Jest, React Testing Library, Cypress, TailwindCSS, SASS, HTML, CSS, webpack
Experienced: Python, Django, Redux, Auth (OAuth, JWTs), GraphQL, Docker, Redis, MUI, WebSockets, CodeMirror, ReactFlow

EXPERIENCE

CityPT | *SUMR Outcome Measure Scorer Platform (citypt.com)* - **Software Engineer**   2023 - *Present*
- Enforced strict type-checking by using TypeScript increasing development velocity by 38%.
- Integrated third-party EMR patient-reported outcome measures with Node.js based scoring system, expanding form options by 20%.
- Designed and implemented AWS DynamoDB table using AWS CDK to consolidate score data for efficient lookup for charting.
- Created body mapping UI feature for patients to select area of complaint so that appropriate form(s) are automatically forwarded.
- Formulated unit testing with Jest to facilitate a dependable and accelerated development process with 100% test coverage.
- Deployed updates to codebase via AWS CDK stack utilizing AWS Lambda within an integrated CI / CD workflow.
- Employed Git/GitLab to manage feature branches, version control, code review, and code repository for collaboration.

SafeQL | *GraphQL API Developer Tool* - **Software Engineer**   *2022*
- Leveraged Next.js' React-based components to build an interactive dashboard for monitoring server data, leveraging its reusable and modular approach as well as its one way data flow to define, store, and manipulate state with minimal renders.
- Formulated algorithm to identify circular logic in GraphQL schema at risk of malicious querying by implementing an adjacency list.
- Visualized GraphQL queries and schemas using CodeMirror and ReactFlow to enable semantic query entry and interactive displays.
- Migrated the entire JavaScript codebase to TypeScript to improve code predictability and reduce bug encounters.
- Utilized Express.js to design routes employing a full range of HTTP utility methods, interacting with middleware and bridging connections between the frontend and multiple RESTful endpoints.
- Completed 100% unit test coverage using Jest, enabling easier debugging, refactoring and code extensibility.
- Developed PostgreSQL database to store past queries and result history in correct date-time order.
- Implemented product page with Next.js for improved SEO, deployed via AWS Amplify, used AWS Route 53 for domain routing.
- Built with the support of Open Source tech accelerator OSLabs (https://opensourcelabs.io/).

NYU Langone, NYP-Columbia University Medical Center - Physical Therapist   *2017 - 2021*
- Eased departmental migration to EPIC EMR as superuser with at-elbow application support with clinical staff users.
- Formed charting templates within EPIC for evaluation and progress notes for department staff clinical documentation.

OPEN SOURCE

AlgoWorkout | *Community Focused Algorithm Platform*   *2022 - Present*
- Developed prototype UI with Next.js for users to monitor algorithm progress, watch solution videos, and display calendar.
- Constructed a Django backend to develop robust and secure APIs for users, task tracking, and database interaction.
- Led weekly workshops and presented lectures on data structures and algorithms to 20+ engineers to improve code efficiency.

Studify | *Remote Study Application*   *2022*
- Engineered file upload feature with AWS S3 Bucket, benefiting from large file support, secure storage, and geolocation.
- Integrated Redis to leverage caching of backend data to decrease database load/cost and improved UI load times by 66%.
- Crafted chat rooms with WebSockets to allow users to communicate in real-time, with persistent data, individualized rooms.

Rent-A-Pet | *Marketplace for Pet Rentals*   *2021*
- Leveraged React's custom hooks and unidirectional data flow to create conditionally rendered and reusable components resulting in an maintainable and modular frontend.
- Created database with PostgreSQL to take advantage of built-in transactional security when making reservations.
- Used conditional rendering in React Router to create a multi-page application with authorized, protected routes.

EDUCATION

Codesmith - Advanced Residency | *Software Engineering*   *2022*
Mercy College | Dobbs Ferry, NY | *Doctor of Physical Therapy*   *2017*
University of Rochester | Rochester, NY | *Bachelor Degree in Psychology*   *2011*

INTERESTS

Racing/fixing cars – '97 & '00 Miata. Bouldering – recently I went to Red Rock! Collecting plants – my current favorite is a Peperomia Rosso. Playing with my ragdoll cat Hazel. Snowboarding in Okemo.