Mckenzie Morris

Software Engineer

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Skills

- JavaScript
- HTML5
- CSS3
- React
- Redux
- TypeScript
- Node.js
- Express
- Jest
- MongoDB

Experience

Chronos

(open source developer tool that monitors health and web traffic for containerized (Docker & Kubernetes) and non containerized microservices communicated via REST APIs or gRPC, hosted locally or on Amazon Web Services)

- Dockerized example application to showcase Chronos' ability to measure performance metrics for a containerized microservices app
- Implemented TypeScript in the example microservices architecture to enforce strict typing for uniformity, ensuring consistent communication and future-proofing the application
- Chose Vite over Webpack for quicker spin-up, taking advantage of its optimized bundling capabilities, built-in TypeScript support, and hot module replacement
- Employed TailwindCSS' utility classes to streamline frontend development and for an aesthetic user interface
- Used Jira as the primary platform for workflow management and coordination among team members, ensuring each issue was addressed in a timeframe that coincided with overall project deadlines
- Adopted Git/GitHub strategies reflecting industry best practices, including main/dev branching models and management of feature branches, ensuring streamlined team collaboration, efficient integration, and robust code versioning

Projects

Strength Tracker ***(Logging weight lifting progress app)***

- Utilized Node.js to construct an API to bridge the frontend and backend, paired with Express to handle HTTP requests, capitalizing on its streamlined server routing and the middleware design pattern to achieve modularized server routes
- Employed MongoDB along with Mongoose as the database solution, incorporating Mongoose's schema-based approach for an efficient semi-structured data model
- Served static HTML and CSS files to the frontend, using DOM manipulation to construct an interactive and engaging user interface, which significantly improved application responsiveness

Workout app ***(With user profiles and secure login functionality)***

- Integrated SASS in the application for styling, leveraging its nesting feature for enhanced code organization and readability. Chose SASS over other styling considerations to streamline the development of a well-structured and maintainable stylesheet for the application
- Implemented JWT-based authentication for robust security, reduced server load, and improved scalability by securely attaching JWTs to cookies upon login and verifying them on each request
- Implemented password hashing with Bcrypt by adding salts to user-generated passwords upon signing-up on the app, enhancing application security, ensuring user data protection, and aligning with industry-standard privacy practices

Digipet ***(Digital pet game)***

- Leveraged React to modularize the frontend of the application, effectively manage state and enhance development efficiency by adopting a component-based approach while mitigating challenges associated with direct DOM manipulation
- Used Jest to create comprehensive test suites for both frontend and backend components, utilizing its capabilities for endpoint testing and frontend functionality verification

Other Programming Experience

VBA userform for writing workout programs

- Implemented macros on an Excel-generated userform to automate the more redundant aspects of programming for clients, substantially reducing necessary time allotted toward that end
- Used coding fundamentals to create, style, and format clients' workout programs with VBA, achieving overwhelmingly positive reception among clients

Education

CodeSmith Software Engineering Immersive Program (Oct '23-Jan '24)

- Advanced residency for Software Engineering

Portland State University ('18-'19)

- Relevant Coursework: Microprocessors, Digital Systems

Portland Community College (Completed Associate of Science Engineering Transfer Degree, March '19)

- Relevant Coursework: Exploring Computer Science, C Programming, Engineering Programming