James Huang

Software Engineer

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Technical Skills

Programming Languages: JavaScript (ES6), TypeScript, HTML5, CSS, Sass, Python, SQL Libraries & Frameworks: React, Next.js, Redux, Node.js, Express, Tailwind, Jest Tools: Git, GitHub, Postman, MongoDB, PostgreSQL, webpack, AWS, Docker, Babel

Experience

Software Engineer | NextSketch

May 2023 - Present

- Leveraged React to build a custom front-end components including, a file system, drag-and-drop elements, a collapsible tree visualizer and a code preview window, allowing the development of a feature-rich prototyping application
- Engineered sortable, hierarchy-based drag and drop code element interfaces with dnd-kit to provide intuitive user interaction and minimize DOM mutations for generation of Next.js boilerplate code and smooth visual performance
- Incorporated D3.js to showcase real-time tree hierarchy of endpoints and Prism.js to display a syntax-highlighted, live-code snippet preview, elevating user visualization and engagement
- Constructed an Express server for a high-performance RESTful application architecture to facilitate directory and file creation using Node.js file system module and to export prototyped Next.js project, enabling easy project sharing and distribution
- Launched the application with Node.js runtime in Electron to leverage Chrome's V8 Engine for seamless Next.js file, component, and page endpoint creation across Windows, macOS, and Linux environments
- Built with Vite to enable efficient dependency handling and hot module reloading for faster build and server cold start speeds
- Expanded TypeScript coverage by 85% to prevent runtime errors, strengthen compile-time type safety, simplify debugging, improve code quality and readability, and streamline the development process
- Designed with MaterialUI's extensive suite of customizable pre-built components and theming capabilities to optimize the styling process, resulting in faster development cycles and consistent design patterns throughout the application
- Added testing with Jest and React Testing Library for mocking folder and file creations and validating the precision of drag-and-drop behaviors, providing detailed feedback to improve user experience and retention

Open Source Contributions

Alley - Tennis Court Locator

March 2023

- Integrated Redux Toolkit to design a compartmentalized store architecture for managing search filters, cached court data and user preferences, ensuring consistent data access across different containers
- Implemented React Router to enable URL-based routing for intuitive navigation of court locations without page reloads

Clearview - Chest Cancer Diagnosis Tool

January 2023

- Developed a deep learning model in Python, leveraging Convolutional Neural Networks and image recognition, to achieve a 90% accuracy rate in detecting and classifying chest cancer types
- Utilized geometric and photometric data augmentation techniques to enhance data quality and model performance, reducing overfitting and bias

Education

Stony Brook University, B.A. Biology

May 2023

Publication/Talks

Speaker | Bractlet Software Engineering Speaker Series - <u>Cross Site Security Risks and Data Prevention Mechanisms</u>
Author | Medium Article - <u>Supercharge Prototyping with NextSketch</u>

Interests

Dragon boat racing, lion dancing, cooking, snowboarding, pickleball, running, handball, rock climbing, and Teamfight Tactics