

Kaihua Zhu

Full-Stack Software Engineer

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Skills

JavaScript, React, Redux, Canvas.js, HTML5, CSS, SCSS, Ruby, Ruby on Rails, Mongoose, MongoDB, Node.js, Amazon Web Services S3(AWS), Express.js, SQL, SQLite3, PostgreSQL, Webpack, jQuery, Git, Heroku, Rspec, Test-Driven Development (TDD), Object-Oriented Programming (OOP), Data Structures and Algorithms, Java, Behavioral-Driven Development (BDD), Selenium, TestNG, Appium, Junit, Test Automation

Education

App Academy

Oct 2020 - Feb 2021

Immersive software development course with a focus on full-stack web development

West Virginia University

Aug 2014 - June 2018

Bachelor's in Computer Science

Projects

Tickstarter (JavaScript, React / Redux, Ruby / Rails, HTML, CSS, PostgreSQL, AWS)

[Live Site](#) | [Github](#)

Tickstarter is a crowdfunding platform that enables users to raise funds from a community of backers, similar to Kickstarter.

- Developed reusable error-handling models to provide a better user experience and maintain code efficiency by eliminating duplication.
- Orchestrated data flow between parent and child React components to create a cohesive multi-step form, resulting in an intuitive user interface.
- Utilized AWS S3 for efficient image storage to improve load times and allow for scalability as the platform grows.

OKCroissant (JavaScript, Mongoose, MongoDB, Express.js, React, Node.js, HTML5, SCSS)

[Live Site](#) | [Github](#)

OKCroissant is a fully functional eCommerce website built with the MERN stack that provides personalized bread recommendations to its users.

- Customized Axios calls were developed to interact with the RESTful routes on the Express backend, streamlining the retrieval of user data from the MongoDB database, resulting in faster and more efficient data handling.
- Implemented model-level validation using the Validator.js library to ensure data consistency within the MongoDB database, enhancing data quality and reliability.
- Employed the JSON Web Token (JWT) library for user authentication to securely transmit encrypted user details over HTTP requests using Axios. On the Frontend, the JWT-Decode library was used to decrypt the token and provide authenticated access to authorized pages.

Meme Puzzle Competition (JavaScript, Canvas.js, HTML5, SCSS)

[Live Site](#) | [Github](#)

Meme Puzzle Competition is an entertaining two-player puzzle game developed entirely with JavaScript.

- Implemented a modal using DOM EventListeners to introduce the game and enrich the user experience. SCSS was used to style and control the display of the modal.
- Leveraged Canvas and JavaScript to facilitate puzzle movement by clearing and re-rendering pieces after each turn, resulting in a smoother user interface.
- Devised a mathematical approach to designing the game's logic, which calculates the next position of each puzzle piece during every possible move.

Experience

Infostretch | Associate Software Engineer Intern

Oct 2021 - Dec 2021

- Developed applications following Test-Driven Development (TDD) and SOLID principles, resulting in a more scalable application architecture and a 30% improvement in workflow speed.
- Deployed the QMetry automation framework for Selenium Web application test automation, resulting in a 40% increase in the speed of developing test automation for the application.
- Utilized the Appium test automation framework for mobile application development, resulting in a 30% reduction in development time across different mobile platforms.