

Justin Kilburn

Software Engineer

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[Linkedin](#)

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[Portfolio](#)

SKILLS JavaScript, React, Redux, Three.js, Ruby, Ruby on Rails, SQL, Git, HTML5, CSS3

EXPERIENCE

RatBear inc., *Founding-Partner/Full-Stack Engineer* Brooklyn, NY January 2023-Present
Software Development Studio; Currently in Development: Willow, Cloud-based digital painting platform

- Collaborated with a small team consisting of the designer/product owner and lead engineer to develop the platform optimized for iPads and Wacom tablets built in the browser to ensure maximum accessibility for users.
- Responsible for coding and developing various components using technologies such as JavaScript, React, PaperJS, and Vite.
- Worked closely with the team to ensure timely delivery of key features, including the platform's speed and usability.
- Played an integral role in creating a highly enjoyable user experience for artists who use lasso painting as a process.
- Spearheaded the initiative to implement the ThreeJS library in place of PaperJS to utilize its enhanced processing capabilities and built in functionality. Harnessed background in using the technology to onboard other developers.

Southside Coffee, *Manager* Brooklyn, NY April 2016-September 2022

- Operated day-to-day activities which led to consistent increase in monthly profits on a year-to-year comparison by at least 10% each month for four consecutive years.
- Managed and trained a team of ten, setting clear goals and expectations, providing regular feedback and guidance, and leading by example to foster a positive and productive team culture.
- Analyzed sales trends and forecasted future customer demand to maintain optimal stock levels.

PROJECTS

HobbyPin (Rails, React, Redux HTML5, AWS and CSS3)

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

A full-stack single-page Pinterest clone where users can create 'boards' to organize image 'pins'.

- Created custom CSS animations using keyframe animation loops and window snapping for a clean and attractive splash page with easy to use UX/UI.
- Implemented Amazon S3 data storage for quickly uploading and retrieving high resolution images attached to individual 'pins'.
- Devised a DRY method for using React's modularity and Redux's state to display an index of all 'pins' on the main page or within a 'board' the user built using the same component to represent each individual 'pin'.

FENCES (JavaScript, HTML, CSS, Three.js, SASS, Webpack)

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

A minimalist-style board game with a reactive computer AI where the user must reach the other side of the board before the computer, all the while blocking paths while the computer does the same.

- Utilized the Three.js library to render backend game logic written in Javascript into an interactive 3-D environment with moveable POV camera and real-time lighting, shadow effects and custom animations.
- Built a responsive computer-player AI that tracks how the user plays and devises a Polytrees data structure of valid moves and will DFS through the move trees to determine the fastest routes to victory or defeat. The will then uses this data to determine where it should move or and where to best block the user.
- Engineered a reactive board mechanic that iterates through all possible moves from the user's current position and test validity. The function finds the element within the ThreeJS scene and highlights it for the user.

reBindr (MongoDB, Mongoose, ExpressJS, React, Redux, Node, Javascript, HTML, CSS)

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

A full-stack single-page application for creating custom email and text reminders for personal appliances.

- Integrated the Twilio and SendGrid APIs for scheduling and sending custom emails and texts containing pertinent information and links requested from the MongoDB database.
- Sustained a strict git routine using branches and daily check-ins while maintaining open communication with two other developers, allowing for continuous work without conflict and the ability to work quickly developing multiple components.
- Designed and structured backend routes to match the needs of the frontend developers to access information for a database. With MongoDB's flexibility, changes were quick and easy to implement when scaling up.

EDUCATION

App Academy New York, NY

2022

- Rigorous 1000-hour immersive full-stack web development intensive with <3% acceptance rate.
- Topics include: TDD, scalability, algorithms, OOP, coding style, REST, security, single-page apps, and web development best practices.

University of Connecticut Storrs, CT

2009

- Bachelor of Science - Psychology; Minor - English