

Alexander George

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Skills Apollo | AJAX | Axios | C | C++ | CSS3 | DevOps | Docker | Express | Firebase | GraphQL | Git | HTML5 | JavaScript | jQuery | MongoDB | MVC | Node | NoSQL | OOP | PostgreSQL | Python | Rails | React | Redux | Ruby | SQL | TDD | TypeScript | UI | UX | WebRTC

Projects

pairboard.dev (TypeScript, React, Firebase, NoSQL, HTML5, CSS3, WebRTC)

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

A pairboard matchmaking web application.

- Implemented TypeScript, composing about 90% of the project, to statically type functions and variables to reduce bugs and promote reusability and scaling.
- Took advantage of both Firebase's noSQL databases (Cloud Firestore and Realtime Database) to maximize the strengths of each and minimize potential costs.
- Created and employed custom hooks to DRY code, as well as decouple logic and presentation.
- Integrated multi-peer WebRTC, allowing up to 1,000 users in a single call, to provide peer-to-peer video calling, reducing the strain on the server and databases.
- Utilized Firebase's Realtime Database for WebRTC signaling, eliminating the need for additional servers or websockets.
- Synergized database with serverless functions and Algolia to develop a broad search mechanism over posts, users, and other public pertinent information.
- Incorporated React lazy and Suspense to lazily load components when necessary and drastically decrease initial load time.

Petsagram (JavaScript, React, Firebase, NoSQL, HTML5, CSS3)

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

A social networking web application inspired by Instagram and built for pets.

- Developed an infinite scrolling feed through an initial fetch and a database listener that paginates posts and provides real-time updates to reduce cloud reads and writes.
- Employed css media queries to dynamically size elements creating a responsive design that is easy to use across all screen sizes from mobile to desktop.
- Heavily incorporated React hooks (especially useContext) to simplify code and eliminate the need for a third party state management system such as Redux.
- Integrated react styled components to couple presentation with functionality to promote reusability and scalability as well as making the code base easier to navigate.
- Enhanced the custom-made user authentication with OAUTH for additional more convenient login options.
- Leveraged the use of Google Firebase's noSQL design to easily construct and use CRUD functions and ensure scalability.

Spotlofi (JavaScript, React, Redux, Ruby, Rails, PostgreSQL, HTML5, CSS3)

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

A web-based music streaming application inspired by Spotify and dedicated to solely lofi music

- Incorporated the React Player npm package to easily construct an audio web player providing an easy to use UI.
- Implemented Rails Active Storage with AWS S3 to host music and image files to ensure scalability, and reduce server load.
- Constructed functional components over classes to ensure standardization, increase readability across application, and allow the implementation of hooks where necessary.

Education

App Academy

Aug 2019 - Mar 2020

Immersive software development course with focus on full stack web development.

Washington State University

Aug 2015 - May 2019

Certified for Computer Science B.S (did not graduate)

Completed relevant coursework in:

Program Design and Development C/C++, Data Structures C/C++, Advanced Data Structures C/C++, Introduction to Computer Architecture, Automata and Formal Languages, Object-Oriented Software Principles, Software Engineering Principles I, Design and Analysis of Algorithms.