

## KARL FLEENER

Software Engineer | New York, NY

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## SKILLS

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**Technical:** React, Redux, JavaScript, Ruby, Rails, SQL, HTML, CSS, PostgreSQL, AWS, Git, MongoDB, Express.js, Nodes.js, Mongoose, Heroku, Webpack

## PROJECTS

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### Pintoit (React, Redux, Rails, PostgreSQL, AWS)

[Live](#) | [GitHub](#)

A Pinterest clone that allows users to share and save pins to categorized boards

- Ensured user privacy and autonomy through frontend and backend authentication measures and React-Router, only allowing logged-in users to access and make changes to their content.
- Improved speed and performance by eliminating N+1 queries by adhering to Active Record best practices, such as eager loading associated relations.
- Optimized performance by connecting Rails back-end to AWS for media storage to reduce server load and improve scalability.
- Implemented CSS media screen queries in order to create a responsive, Masonry style layout with seamless transition between display sizes to improve user experience.

### Felix (MongoDB, Express, React, Node.js)

[Live](#) | [GitHub](#)

An emotion-based media curation app

- Headed front-end development and design while collaborating with 3 other Software Engineers.
- Incorporated React to minimize expensive DOM updates, improving app performance.
- Managed React components by reusing them to maintain our codebase, and give app a consistent look and feel.
- Applied CSS Grid layout and Flexbox allowing for seamless transitions between display sizes for a dynamic product design.

### Algorithm Visualizer (JavaScript, Canvas)

[Live](#) | [GitHub](#)

Visualization tool for sorting algorithms

- Built in Vanilla JavaScript, Implemented the algorithms bubble sort and quick sort.
- Leveraged generator functions for asynchronous programming allowing Canvas to render each iterative loop in the sorting algorithm.
- Integrated session storage to persist settings data over page reloads enhancing user experience.

## EXPERIENCE

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Ferrara Manufacturing | New York, NY

April 2019 – September 2019

### Patternmaker

- Built alteration libraries across 6 garment categories improving automated creation of patterns.
- Introduced data management and version control system allowing focus on data-driven development.
- Enabled automated cutting of plaid styles utilizing Gerber increasing productivity by 15%.
- Analyzed and aligned custom patterns to specification resulting in a 20% error reduction.

Resonance | New York, NY

April 2017 – March 2019

### Patternmaker

- Managed pattern libraries and coordinated product development for 5 brands.
- Produced 15 new patterns or iterations per month expanding each brand's product count by 25%.
- Operated on an agile team with Design, Engineering and Sales responding to customer needs.

- Developed brand fit standards and boosted consumer buying confidence by 10%.

## EDUCATION

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**App Academy** | New York, NY

1000-hour immersive full-stack web development bootcamp with < 3% acceptance rate

**Iowa State University** | Ames, IA

Bachelor of Science in Apparel, Merchandising, and Design