

TECHNICAL SKILLS

JavaScript, Python, React, Redux, Ruby, Rails, Git, Java, Spring Boot, HTML5, CSS3, SCSS, jQuery, Bash, Node.js, Webpack, Heroku, RSpec, PostgreSQL, MySQL, MongoDB, Express.js

EDUCATION

Stony Brook University
BS Computer Science

2014 - 2018

App Academy

2019 - 2020

Immersive 1000+ hour software engineering course with a <3% acceptance rate

PROJECTS

Discrud | (*React/Redux, Rails, ActionCable/Websockets, PostgreSQL, Heroku*)

[live](#) | [github](#)

Single-page web app based on Discord, a platform for creating and sharing community servers with multiple chat channels

- Designed a RESTful API that preloads relevant data in each response to improve frontend load time
- Wrote custom ActiveRecord queries to validate user permissions and prevent unauthorized access
- Employed Rails' Action Cable and Redis to deliver chat message events across websockets in real time
- Implemented higher-order React components to create a modal framework for reusable input forms

Splat | (*React/Redux, Tone.js, Node.js, Express.js, MongoDB*)

[live](#) | [github](#)

In-browser music sampler and sequencer with preloaded custom sample themes and adjustable tempo controls

- Utilized Redux architecture to globally store themes and sequences, guaranteeing reliable DOM rendering
- Integrated the Tone.js Transport class with React component state to sync audio playback and component rendering with extremely precise timing
- Practiced a git flow methodology to ensure a consistent quality and correctness of code in the shared repository

Dessin | (*JavaScript, HTML5 Canvas, SCSS*)

[live](#) | [github](#)

Interactive pattern generator using recursive geometry to create eye-catching animations

- Developed an extensible system for drawing self-similar shapes with iterated transformations, allowing users fine control over several independent parameters
- Leveraged media queries to style a responsive UI accessible to both desktop and mobile users
- Crafted mathematical utility functions to compute the best parameters for smooth animations

Redistricter | (*Java, Python, Spring Boot, MySQL, Shapely*)

[github](#)

Web app that generates congressional voting districts according to user-selected measures of fairness

- Architected an backend with object-oriented design patterns to minimize redundant logic in Spring services
- Created a pipeline of Python scripts to synthesize voting data with geographic data extracted from GeoJSON files, culminating in a graph (network) representation of every state, district, and precinct
- Optimized the graph-building process by incorporating a specialized data structure, yielding a >95% speedup

EXPERIENCE

Carvel

Shift Leader

Jun 2017 - Dec 2019

Team Member

Jul 2016 - Jun 2017

- Engaged customers to create product experiences tailored to their personal preferences
- Trained new hires to effectively handle daily tasks and responsibilities
- Invented a new process for creating a product, reducing average time spent on bulk orders by ~20%