

# Cody Defgraffe-Niles

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## SKILLS

React.js, Ruby on Rails, JavaScript, jQuery, Ruby, Redux, SQL, PostgreSQL, Express, Git, HTML5, CSS3, MongoDB, Mongoose, Node, Canvas API, Action Cables, WebSockets

## PROJECTS

### MINI-XCOM

[LiveSite](#) | [Github](#)

*A turn-based game where a user commands a tank squadron constructed with Vanilla JS and Canvas API.*

- Incorporated Object Oriented Programming to create a DRY code base and an easily modifiable game state.
- Constructed a competent AI opponent that stores the game as a property and makes tactical, but not infallible, decisions based on the current and possible future game states.
- Employed Canvas API, DOM manipulation, and mathematics to track the location of users' clicks, which, in combination with SVG images/animation and timeouts, ensures a crisp, real-time gameplay loop.

### Cacophony

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

*Fullstack Clone of Discord where users can join servers and chat in real-time powered by React/Redux & Ruby on Rails.*

- Leveraged associations, Jbuilder, reducers, and hashes to improve performance by reducing backend calls by upwards of 90% and run time from  $O(n^2)$  to  $O(n)$ .
- Combined SASS, Redux state, and `mapStateToProps`, to allow navigational React components to track a user's location on the site and highlight the corresponding HTML elements leading to improved user readability.
- Utilized Z-index and visibility CSS properties as well as the `:hover` selector to create descriptive tooltips that appear when necessary ensuring an informed, clear user experience.
- Applied Action Cables to incorporate WebSockets ensuring real-time communication between users.

### Hoppers

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

*An application where users can plan events built by a team leveraging the MERN stack and Google Map API.*

- Built a MongoDB database that efficiently stored and dispatched data using Mongoose and RESTful routes to enhance overall app performance and allow for scalability.
- Collaborated, as a backend lead, with frontend engineers to ensure proper data transfer (volume and format) which created cohesion between engineers and improved overall app performance by a 30% reduction in backend calls.
- Implemented a Redux slice of state as well as a multi-layer validation system utilizing the Validator.js library to create an error handling system for user input that protects the database from malformed data and returns precise, dynamic error messages resulting in an improved user experience.

## EXPERIENCE

### 2nd Shift Grocery Lead

*Shoprite of Daleville, February 2018 - Dec 2021*

- Trained and mentored 12 new hires in time management skills, the use of hand-handle inventory trackers, forklift operations, and customer service skills in order to increase their self-sufficiency.
- Developed and implemented a detailed workflow with explicit individual and group responsibilities resulting in an 80% increase in worker productivity even with pandemic-caused short-staffing.
- Achieved a 99.5%+ attendance rate as well as trained 50% of the grocery staff for a new store, culminating in being extended a Grocery manager position.

### Economics Teaching Assistant

*Williams College, Spring 2015 - Spring 2017*

- Leveraged economic knowledge and communication skills to provide effective and efficient review sessions for 70+ students on economic principles and models, helping them achieve a 95%+ class pass rate.
- Took the initiative to give clear, detailed, written feedback to students on problem sets and communicate class-wide areas of weakness to professors.

## EDUCATION

**App Academy** - 16 week-immersive FullStack software development course (December 2021 - April 2022)

**Williams College** - BA - Economics and Political Science (August 2013 - June 2017)