## Thomas Cantwell

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#### **PROFILE**

Software Engineer and adventurer with a love of art and nature and a passion for learning. Experienced in React, Redux, and Ruby on Rails with an education in Art. Enjoys problem-solving, learning, and working collaboratively to build programs that enable others to unleash their creativity.

#### **TECHNICAL SKILLS**

Ruby, Rails, Javascript, React, Redux, SQL, HTML, CSS, Photoshop, Lightroom

#### **TECHNICAL PROJECTS**

# A\* Pathfinding Visualizer - https://dreamy-cori-d15ae3.netlify.app/ | Github

Pathfinding visualizer to see how A\* algorithm works step by step. (Built with JavaScript)

- Implemented a custom map drawing method to allow users to try the algorithm with any maze they can imagine.
- Built several types of calculation methods so users can see how they affect the efficiency and nature of the path.
- Designed interface for changing settings to make the program easy to use.
- Built several random maze generators using different algorithms to make it easy to try pathfinding in mazes..

## PixTile - <a href="https://www.pix-tile.com/">https://www.pix-tile.com/</a> | Github | Demo

Drawing app designed to help people make repeating patterns, whether for repeating textures in games, textile design, or for helping those with artist's block. (Front-end built using React and Redux. Back-end built with Rails)

- Implemented user authentication and authorization to allow users to save their images to the database.
- Designed a color replacement method by creating an offscreen canvas with a minimum size version of the user's image and iterating over that, enabling users to replace colors on the fly.
- Stored pixel information in hashes to enable more efficient color mapping, allowing user to select much larger sizes for their designs.
- Created a 9-grid interface for drawing that facilitates ease of making repeatable patterns.

## Snail Racing - https://cryptic-badlands-26813.herokuapp.com/ | Github | Demo

An interactive app for creating, racing, and betting on snails. (Built entirely with Rails, no javascript.)

- Designed a custom character creation feature to allow users to create their own snails.
- Created an algorithm for dynamic race animation based on snails' attributes to ensure race results are always different and provide unique user experiences.
- Implemented user authentication and authorization to allow users to save their bets to the database and view their winnings.

#### **EXPERIENCE**

## **READY-SET-WEAR, LLC - Co-owner**

New York, NY

Online resale business specializing in selling designer handbags and clothing through merchant sites such as ebay and tradesy.

07/2015 - Present

- Photographed and listed inventory.
- Responsible for all things customer service related including maneuvering through the bureaucracy of ebay, paypal, and the postal service.
- Handled public relations issues such as ensuring that the reputation of the business is protected and reducing liability from lost or stolen items.

### **EDUCATION**

Flatiron School New York, NY

Full Stack Web Development, Ruby on Rails and JavaScript program

01/ 2020 - 05/2020

**Foothill College**Los Altos Hills, CA
Took supplemental courses in math and science
01/2012-06/2013

University of California, Irvine Bachelor of Arts in Studio Art

Irvine, CA 06/ 2010