Thomas Cantwell, Software Engineer

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thomascantwell.com | Github | Blog

TECHNICAL SKILLS

Proficient: JavaScript, React, Redux, HTML, CSS, Photoshop
Working Knowledge: Ruby, Rails, Rspec, Node.js, SQL

TECHNICAL PROJECTS

Pixel V - https://pixelvee.netlify.app/ | Github
Advanced pixel art drawing app.
- Built around an undo/redo stack for actions as the foundation to make the app easy to use.
- Made an HSL color picker from scratch for intuitive color selection.
- Implemented tool for making bezier curves with pixels so users can easily make natural curves.
- Tech Stack: JavaScript, CSS

A* Pathfinding Visualizer - https://astarpathfinder.netlify.app/ | Github
Pathfinding visualizer to see how A* algorithm works step by step.
- 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 1make the program easy to use.
- Built several random maze generators using different algorithms to make it easy to try pathfinding in mazes.
- Tech Stack: JavaScript, CSS

PixTile - https://www.pix-tile.com/ | 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.
- 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.
- Tech Stack: React, Redux, Rails, PostgreSQL, Active Record, CSS

Snail Racing - https://cryptic-badlands-26813.herokuapp.com/ | Github | Demo
An interactive app for creating, racing, and betting on snails.
- 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.
- Tech Stack: Rails, PostgreSQL, Active Record, CSS

EXPERIENCE

READY-SET-WEAR, LLC - Co-owner   New York, NY
Online resale business specializing in selling designer handbags and clothing   07/2015 - 03/2020
through merchant sites such as ebay and tradesy.

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   Irvine, CA
Bachelor of Arts in Studio Art   06/ 2010