

# Sunny Wong

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## Projects

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

A Single Page Discord-inspired app created using React, Redux, Flux, Ruby on Rails, jQuery and PostgreSQL

- Coupled a React-Redux frontend to render a user interface based on data queried through Rails ActiveRecord to create a modern styled live messaging app
- Incorporated websockets through Rails Action Cable to actively feed updated information to the React-Redux frontend to support real time messaging features between multiple users or direct messaging between two users
- Implemented media query breakpoints to properly resize the app and keyframe animations to smoothly transition opening a modal to improve UI/UX when using features like creating or updating servers, text channels and friendships

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

A JavaScript library which simplifies client DOM manipulation and AJAX requests

- Users can select DOM elements using css selectors, tags, and functions with simple syntax, a simple todo-app was built to show MarkDOM's efficiency in creating a web app
- MarkDOM objects are easily manipulated using simple syntax like 'on/off' to add or remove event listeners, or 'children/parent' to traverse the DOM
- Simplifies XHR requests to '\$m.ajax' and returns promises to better scale the creation of web apps using MarkDOM

### Happy Square - [Live](#) | [GitHub](#)

A interactive board built using canvas with a simple physics engine to make people happier built using vanilla JavaScript

- Implemented colorful randomized visual and audio patterns to render based on event listeners like 'click' and 'keydown' to create a positive and interactive experience
- Built a layer of physics to allow for gravity, and two-dimensional collision effects based on the object's momentum which was calculated base using conservation of momentum and energy
- Added options to toggle gravity features to allow for more unique patterns in collisions between objects and the cursor to further a unique user experience

### Tic Tac Toe - [Live](#)

Class Board Game

- Designed layout to allow users to pick their starting piece and allow users to play again
- Built a unbeatable AI based on a min max algorithm to compute the best move possible in a given turn

## Skills

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CSS3, HTML5, JavaScript, Ruby, React, Redux, PostgreSQL, Rspec, Rails, Responsive Web Design

## Education

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### App Academy

Nov 2017 - Feb 2018

New York, NY

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

Teaches full-stack web development: Rails, SQL, JS, React, TDD, algorithms, design patterns, single page apps and programming best practices.

### Free Code Camp

May 2017 - July 2017

New York, NY

400-Hour Front End Web Development Certification

focusing on front-end development: HTML, CSS, jQuery, JavaScript Responsive Web Design

### Stony Brook University

Graduated May 2016

Stony Brook, NY

*Bachelor of Engineering in Biomedical Engineering*

Presidential Scholarship Recipient | Dean's List 2012-2013

Relevant coursework: Engineering Calculus, Engineering Intro to C++, Multivariable Calculus, Differential Calculus

## Experiences

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### Stony Brook University

Feb 2015 – May 2016

Stony Brook, NY

*Design Project Leader, Research Assistant*

- Designed a high frequency pressure control system to mimic pulsatile flow in the vasculature using SolidWorks, Arduino interface and laser cutting.
- Planned milestones and weekly meetings using Gantt charts while assessing customer needs and design constraints using house of quality charts
- Created a functioning prototype which was tested using an oscilloscope and pressure gauge to create performance curves using Excel for a formal presentation at a university wide STEM fair.