

# Edwin Shin

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## SKILLS

Ruby, Ruby on Rails, JavaScript, jQuery, React.js, Redux, SQL, Git, HTML5, CSS3, RSpec, MongoDB, Node.js, Express.js, AngularJS

## WORK SAMPLES

### DownBeat

[downbeat-app.herokuapp.com](https://downbeat-app.herokuapp.com) | [github.com/masag0/DownBeat](https://github.com/masag0/DownBeat)

*A music streaming web application inspired by Spotify created using Ruby on Rails, React.js, Redux, HTML5, CSS3, and jQuery*

- Implemented continuous playback of songs while navigating through the single page web application using Howler.js
- Designed and built audio player UI from scratch using HTML, CSS3, JavaScript DOM manipulation, and React Draggable to implement seek/volume bars and control buttons
- Implemented instant search feature using jQuery to send AJAX requests and retrieve data for an instantly updating index
- Debounced search query AJAX requests to avoid race conditions where earlier queries overwrite later queries

### Guntanks!

[masag0.github.io/Guntanks](https://masag0.github.io/Guntanks) | [github.com/masag0/guntanks](https://github.com/masag0/guntanks)

*A turn-based tank artillery style game inspired by Gunbound created using JavaScript, HTML5 Canvas, and CSS3*

- Implemented particle collision between projectiles, terrain, and tanks using multiple canvases to check pixel data to detect collisions
- Created destructible terrain using JavaScript and HTML5 Canvas to erase portions of the terrain on collisions
- Implemented simple 2D physics using kinematic equations for projectile motion to adjust coordinate and velocity vectors while rendering to the canvas. Changing wind conditions were also implemented.

### MyMetrics

[mymetrics-app.herokuapp.com](https://mymetrics-app.herokuapp.com) | [github.com/Lawrenccee/MyMetrics](https://github.com/Lawrenccee/MyMetrics)

*A biometric tracking web application for CHF patients and their doctors created using MongoDB, Express.js, Angular.js, and Node.js*

- Implemented daily biometric tracking using MongoDB nested documents and designed the structure of the database
- Added user authentication using Passport.js and Express.js, salting and hashing passwords with bcrypt.js and encrypting the user's id and storing it as a session token
- Linked frontend and backend auth by passing user info on log in and sign in requests and redirecting to relevant views

## EXPERIENCE

### Research Assistant

Georgia Institute of Technology

Fall 2011 - Fall 2013

- Investigated nanoparticle binding with cells for cancer research using flow cytometry and confocal microscopy

### Badminton Coach

Bay Badminton Center

Spring 2014 - Summer 2016

- Taught adults and children badminton and competed in and won several local and national tournaments

### Musician/Music Educator

Evergreen Studio of Music and Arts

Fall 2016 - Fall 2017

- Played shows with multiple band and artists around the Bay Area and taught students in several private music centers

## EDUCATION

### App Academy (Winter 2017 - Spring 2018)

Immersive software development course with focus on full stack web development

### San Francisco State University (Spring 2013 - Summer 2014)

Took CS classes including Data Structures, Algorithms, OOP, Machine Structures, and Theory of Computing

### University of Georgia (Fall 2007 - Summer 2011)

BS - Biochemistry/Molecular Biology