



Miles Hobby

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EXPERTISE

Ruby, Rails, Rspec, SQL, JavaScript, React, Redux, jQuery, HTML, CSS, Git,

EDUCATION

University of California at Santa Cruz, 2016

- B.S: Bioengineering, Minor: Bioinformatics
- Summa Cum Laude
- GPA: 3.95

App Academy, 2017

- Rigorous 1000+ hour coding program with <5% acceptance rate
- Focuses on Test Driven Development, Object Oriented Design, and Pair Programming

EXPERIENCE

Undergraduate Researcher 2016

UCSC IGEM

- Designed and carried out quantitative biochemical experiments to engineer a bacterial organism to produce food from agricultural waste
- Drafted standard protocols and operating procedures to standardize experimental technique, resulting in more reproducible results

Undergraduate Researcher 2014-2015

Stone Research Group

- Streamlined analysis of biophysical data on telomeric DNA by writing scripts in Matlab to process results
- Performed real-time micromanipulation of single-molecules using LabView
- Trained incoming lab-members on experimental technique and equipment use

PORTFOLIO

Events4u

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

Single page web application inspired by EventBrite built with Ruby on Rails, PostgreSQL, ReactJS, and a Redux architecture

- Utilized set theory to write a collaborative filtering algorithm to dynamically generate event recommendations for users
- Integrated Google Maps API by making AJAX requests to geolocate users to provide directions to an event based on their current location
- Remotely stored drag-and-drop image uploads on the cloud using Cloudinary
- Optimized user search capabilities by implementing an autocomplete search bar that makes Active Record SQL queries in real time

TurnTable

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

Three-dimensional musical step sequencer for creating simple melodies in the browser built with vanilla JavaScript, HTML, and CSS

- Implemented a continuous playback feature using a combination of recursion and asynchronous callbacks
- Structured the application with object oriented design to create cells that maintain the state of their HTML audio elements
- Utilized CSS3 transforms to create 3D effects
- Manipulated the DOM with pure Javascript rather than JQuery in order to reduce bloat and improve efficiency

Small Talk

[In Progress](#) | [Github](#)

iOS mobile application where users are matched with one another to video chat based upon common interests; built with Django and React Native

- Integrated WebRTC to establish peer to peer connections between users to allow for video chatting capabilities
- Utilized Django Channels to create a signalling server where users can exchange metadata over WebSocket connections
- Dynamically generated two-person chat rooms upon WebSocket handshakes
- Maintained an organized team workflow using the Git Feature Branch workflow and Asana task management