Miles Hobby

Phone 831-239-4807
www.mileshobby.com
mhobby16@gmail.com | **github.com/mileshobby** | **linkedin.com/in/miles-hobby**

EXPERTISE

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

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   *UCSC IGEM*
2016

- 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   *Stone Research Group*
2014-2015

- 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   **Live Site** | **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