

# LUCAS AMARAL

## SOFTWARE ENGINEER

### INFO

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**GitHub**

[github.com/lvamaral](https://github.com/lvamaral)

**LinkedIn**

[linkedin.com/in/lucasvamaral/](https://linkedin.com/in/lucasvamaral/)

### EDUCATION

**Duke University** *Durham, 2016*  
B.S. in Economics & Finance  
GPA: 3.6

**App Academy** *San Francisco, 2017*  
Rigorous 1000+ hour full-stack coding bootcamp that accepts < 3% of all applicants

### SKILLS

- JavaScript, JQuery
- Node, Express
- React, React Native
- Ruby, Rails
- Redux
- SQL, NoSQL
- HTML, CSS
- Portuguese, Spanish

### PROJECTS

**BetterPlaylists** - [Live](#) | [Github](#)

Full stack music-sharing website built with Ruby on Rails on the backend, a PostgreSQL database, and React.js with a Redux architectural framework on the frontend.

- Secured user account creation and authentication for login and signup based on BCrypt encryption
- Developed Rails database model associations to give users the ability to create, share, and follow/unfollow playlists, using React to render real-time client side updates
- Implemented custom-built React playbar component integrated with AWS-hosted music files for continuous, site-wide music playback

**Playtime App** - [Live](#) | [Github](#)

Mobile app that facilitates coordination of dog play dates, and finding nearby dog parks. Built with React Native, a Firebase (NoSQL) database, and a Ruby on Rails server for push notifications.

- Implemented Facebook and Gmail login and signup authentication
- Used Google Maps API and geolocation to locate and display nearby parks
- Developed system for push notifications to alert users when they receive follow requests and other updates using a Rails server
- Integrated AWS image-hosting to allow user-uploaded profile pictures of their dogs

**King of the Hill** - [Live](#) | [Github](#)

Online, synchronous multiplayer battle game. Built purely with Javascript, using Phaser.js for HTML Canvas rendering on the frontend, a Node server with Express.js, and Sockets.io for client-server communications.

- Developed real-time multiplayer from scratch by creating a bi-directional data flow between clients, sockets, and the server
- Handled player input through JS browser events, and game rendering using Phaser.js for map and character animations
- Kept game synchronized by referencing and updating a server's authoritative game state on player login/logout, movement, rotation, and attack through socket events

### WORK EXPERIENCE

**Associate at Expanding Capital**, Venture Capital Firm  
*San Francisco, May 2016 – Mar 2017*

- Created a Python web-crawler to aggregate information on startup funding rounds, and used Excel and statistical methodology to find quantitative indicators of startup investment attractiveness based on previous funding activity
- Prospected and wrote research briefs for potential investments, ultimately producing a list of 60+ "wish-list" companies the firm's partners pursued, resulting in two \$1MM investments
- Designed the official company website using HTML and CSS