

# LOUIS LEON

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<https://louis-c-leon.github.io/portfolio>

[LinkedIn](#)

[Github](#)

## EXPERIENCE

**Software Engineer** - Riva, San Mateo CA

June 2019 - August 2020

- Collaborated in a small team of full-stack engineers to design and implement a highly scalable application backend using serverless architecture in AWS (Lambda, API Gateway, Cloudformation, and other services).
- Took the lead in researching, developing, and deploying our secure payments system. Handled frontend components, secure external APIs, and business logic regarding recurring payments and individualized subscription plans.
- Researched, developed, and implemented a secure live chat system that interfaces with Riva's CRM solution. Built a GraphQL API on AWS to allow live messaging updates using GraphQL subscriptions and the WebSocket protocol.

**Programming Instructor** - MV Code Club, San Francisco CA

Sept 2018 - Jan 2019

- Created lesson plans, tracked student progress, and instructed groups of up to 20 students on core programming concepts using JavaScript and MIT's Scratch learning platform

## PERSONAL PROJECTS

**SympleSynth** (JavaScript, HTML5, CSS, Web Audio, Webpack)

[live](#) | [github](#)

Keyboard synthesizer instrument for creating, saving, and playing dynamic and customizable sounds

- Developed a clean user interface for generating, controlling, and visualizing highly customizable sounds in the browser using only vanilla JavaScript / HTML / CSS and the native Web Audio API.
- Engineered an object-oriented structure to generate audio signals and control signal flow through many different audio processing modules, contained in custom classes controlled by a single synthesiser object.

**MyPhotoJourney** (MongoDB, Mongoose, Express, React/Redux, Node.js, JavaScript, HTML5, CSS, AWS)

[live](#) | [github](#)

Full stack social/travel app for creating and sharing interactive vacation maps

- Built custom API routes and model validations to accept user-submitted location names and return longitude/latitude coordinates, allowing photos to be displayed at the correct locations on the map.
- Validated user input in both frontend inputs and backend Mongoose ODM models to eliminate ambiguous inputs or typos and render informative errors.
- Designed a dynamic input component that displays and updates feedback about the status of the location search once the user starts typing.

**SoundCrowd** (React/Redux, Rails 5, Postgres/SQL, Ajax/HTTP, HTML5, SCSS, JavaScript, AWS)

[github](#)

Full stack, single-page clone of the popular SoundCloud social media and music app

- Implemented a CRUD for user songs using Rails 5 with ActiveStorage with file storage on AWS S3. Asynchronous HTTP requests update new song data without reloading when creating, playing, or deleting songs.
- Created a custom audio player component using React / Redux and JavaScript DOM manipulation to implement all standard GUI player controls. Used global frontend state to allow continuous playback while navigating the site.
- Designed custom frontend routes for a scaled-back UI/UX, including song pages, user/artist pages, and splash pages.

**SKILLS** JavaScript, Ruby, HTML/CSS, SQL, Rails 5, MongoDB, Express.js, React, Redux, Node.js, Git, Python, AWS, REST, GraphQL

## EDUCATION

**App Academy**

Jan 2019 - Mar 2019

- Immersive, 1000-hour full-stack software development course that teaches topics including MVC frameworks, TDD, pair programming, algorithms and data structures, scalability, OOP, and programming best practices.

**University of Texas at Austin** - BA Philosophy, Mathematics minor

Sept 2012 - Aug 2018

- Relevant Coursework: Elements of Computers and Programming, Software Design, Introductory and Intermediate Symbolic Logic, Discrete Mathematics