Jonathan Liu

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[LinkedIn](#) | [GitHub](#) | [Portfolio Site](#)

JL

EXPERTISE

Ruby	**Rails**	**JavaScript**	**Redux**	**HTML5**	**SQL**
Three.js	**jQuery**	**React.js**	**Python**	**CSS3**	**Git**

PROJECTS

Ask()   [Live Site](#) | [Github](#)
Single-page application for asking and answering questions inspired by Quora. Created using Ruby on Rails, React, and Redux.

- Secured user data with a customized authentication system using BCrypt for password hashing and SecureRandom for session tokens.
- Optimized data-fetching by bundling JSON responses to a single AJAX request for each view.
- Implemented a search bar with autocomplete using the PgSearch Ruby gem for PostgreSQL trigram searches.

Synesthesia   [Live Site](#) | [Github](#)
Browser-based 3D music visualizer built with Three.js and the Web Audio API.

- Designed visualizations in Three.js with cube, tube, and particle geometries.
- Normalized audio sampling rate to ensure consistent quality experiences.
- Allowed users to customize their experience by supporting local music uploads processed as audio array buffers.

Runway   [Github](#)
Custom controller and view backend framework built with Ruby.

- Managed HTTP requests with a router that instantiated controller instances to generate views for the client.
- Protected against CSRF attacks with authenticity token generation for post, put, and delete requests.
- Included a set of middleware that would allow users to serve static assets through URL paths and generate a custom view to render exceptions.

EXPERIENCE

Administrative and IT, Contract | December 2016 - March 2017
Medows CPA, New York, NY

- Developed scripts in Python to handle automatic batch file transfers.
- Onboarded 2000 clients from a firm merger into new Client Relationship Management and Document Management System software.
- Directed network setup and expanded the workstation domain by 40%.

EDUCATION

APP ACADEMY (Summer 2017)
Immersive software engineering program with < 3% acceptance rate. Curriculum emphasis on full-stack development, algorithms, and data structures.

YALE UNIVERSITY (Spring 2015)
BA - Economics