

Keith Thompson

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PROJECTS

AllOfMyPhotos (Rails, PostgreSQL, JavaScript, React/Redux) ◦ [live](#) ◦ [source](#)

A full-stack, single-page picture management application. Frontend written in JavaScript, React, and Redux. Consumes a RESTful JSON API written in Rails.

- Stores images on the cloud with AWS S3 for scalability and performance benefits
- Introduced lossless image compression and a controlled initial load to decrease critical page loading time by up to 50%
- Incorporates Big Huge Thesaurus API for smart tag search enabling users to have a much more fluid search experience

StochasticSuperMario (JavaScript, HTML5, CSS3) ◦ [live](#) ◦ [source](#)

Super Mario inspired game with randomly generated levels

- Implemented an interval tree data structure for $O(\log(n))$ collision detection
- Utilizes multiple layers of HTML5 canvas elements so that motion of characters and objects are fluid for the user
- Built and deployed to Heroku using *Bezel*, my lightweight MVC framework

Bezel (Ruby)

Lightweight MVC framework inspired by Rails

- Used the [Thor](#) API to create a command line interface to smooth the learning curve for developers familiar with rails
- Configured to generate a Procfile for new projects so that developers can easily deploy to Heroku

SKILLS

JavaScript, React.js, Ruby, Rails, Redux, jQuery, Java, SQL, HTML5, CSS3, C++

EDUCATION

App Academy

July - Nov 2016

- 1000-hour immersive web development program with a 3% acceptance rate
- Teaches full-stack web development: Rails, SQL, JS, React, TDD, algorithms, design patterns, and programming best practices

The City University of New York, College of Staten Island May 2016

- *Bachelor of Science Degree in Mathematics, with honors*
- *Minor: Business*
- GPA: 3.95/4.00

PROFESSIONAL EXPERIENCE

Lehman College, REU in Computational Biology

Sep 2015 - Jan 2016

- Wrote Python scripts to test experimental data which decreased testing time by up to two hours
- Co-author of '*Determining If Tree-based Networks Contain Fixed Trees*' which was published in the Bulletin of Mathematical Biology

Computer Science and Mathematics Tutor

Dec 2012 - May 2016

- Lead tutor for abstract algebra and undergraduate analysis
- Students who attended weekly tutoring sessions received at least a B