Zach **Gavin**

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Portfolio   **Github**   **Linkedin**

PROJECTS

GoodMOOCs *(Rails, React/Flux)* | live | github
Web app for discovering and reviewing online courses.
• Rails backend serves a RESTful JSON API to React/Flux frontend.
• Provides course suggestions organized by aggregate ratings from courses and reviews Rails associations.
• Builds search tables with content field allowing full text-search over users and courses.

BounceAround *(Javascript, HTML5)* | live | github
Browser game on HTML5 Canvas.
• Simulates realistic recoil / bounce algorithms using vector algebra.
• Simplifies keypress handling with Keymaster library.

ActiveRecord Lite *(Ruby, SQL)* | github
An ORM abstracting SQL queries with Ruby.
• Builds Object-Oriented relationship between Ruby classes and SQL database.
• Retrieves stored data by any field with metaprogramming methods.
• Perform efficient queries with complex SQL joins.

SKILLS

Ruby	**Rails**	**SQL**	**HTML/CSS**	**SQL**
JavaScript	**jQuery**	**React**	**Flux**	**Git**

WORK

Development Assistant - *Philadelphia Education Fund* 2015
• Updated and maintained hundreds of donors' data in Raiser's Edge.
• Conducted prospective donor research each month.

Ocean Lifeguard - *National Park Service* 2014 - 2015
• Supervised 1000+ visitors per day across one quarter mile of shoreline.
• Practiced Red Cross preventative lifeguarding for a major-accident free season.
• Addressed emergency situations and set schedules in Head Lifeguard's absence.

EDUCATION

App Academy - *Acceptance rate under 3%* 2015
• Intensive web development training program emphasizing pair programming, test-driven development, and best practices in JavaScript and Ruby on Rails.

Swarthmore College - *B.A. in Math and Education* 2010 - 2014
• Course Highlights: Linear Algebra, Discrete Mathematics, Statistical Analysis.
• Senior Thesis: Digital Game Learning in Intermediate Mathematics Pedagogy.