# Daniel Herr

# **Projects**

φmail, Rails, React.js/Flux, (Live, GitHub).

A clone of google's Gmail.

- Rails RESTful JSON API consumed by Flux/React frontend.
- Throttles autosave to reduce server load and allow for scale.
- Creates a seamless UX by supporting batch conversation updates.

#### Asteroid Hell, JavaScript, HTML5 canvas, jQuery, (Live, GitHub).

- Detects collisions using vector algebra and the separating axis theorem.
- Ensures portability across browsers by using jQuery to manipulate the DOM.

#### AR-lite, Ruby, SQL, (GitHub).

A Lightweight ORM based upon Rails' ActiveRecord.

- Reduces boilerplate code by automating definition of standard model attributes.
- Dynamically creates join tables to reduce the number of database queries.

#### Open Books on Contact Three Orbifolds, (Text).

- Won the UMass Math Department 2013 Distinguished Thesis Award
- Extends Giroux's foundational correspondence between Contact Structures and Open Books to the Symmetry-Invariant case.

### Skills

Ruby	JavaScript	$\operatorname{SQL}$	HTML/CSS	LATEX
Rails	React.js	Flux	iQuerv	$\operatorname{Git}$

#### Education

### 2015 - 2016 App Academy.

- Immersive, full-stack web development training program
  - Acceptance rate under 3%
  - Emphasis on pair programming, test-driven development, and best practices.
- 2007 2013 University of Massachusetts, Ph.D. in Mathematics.
  - o GPA: 3.97
- 2002 2006 **Oberlin College**, B. A.
  - GPA: 3.52
  - o Major: Mathematics, Minor: Computer Science

## **Employment**

- 2013 2015 Visiting Assistant Professor, Wheaton College, Norton, MA.
  - Taught approximately ninety students per semester in Calculus, and Statistics.
- 2007 2013 **Teaching Assistant**, University of Massachusetts, Amherst, MA.