

# Renata Cummins

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## Skills

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Ruby, JavaScript, React, Ruby on Rails, SQL, CSS, HTML

## Independent projects

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### Conway's Game of Life [Live](#) | [GitHub](#)

2-dimensional visual simulation built with JavaScript and HTML5 Canvas

- Reduced rendering lag by 10x by optimizing the number of calls to the HTML5 Canvas API
- Implemented an algorithm to calculate cell states in the next generation on a toroidal grid surface

### Recipe Sharing App [Live](#) | [GitHub](#)

Single-page app with React/Redux front end consuming a RESTful Rails API

- Reduced server load and ensured seamless user experience by populating the Redux store with info for all recipes, so users can instantly view recipe details without waiting for an AJAX response
- Used JavaScript promises to handle errors during recipe creation and editing
- DRYed up front end code by creating a single React component to display all lists of recipes, passing any necessary buttons into the component as props

### Minesweeper Game [Live](#) | [GitHub](#)

Clone of the classic PC game built with React and a Rails-backed scoreboard

- Leveraged recursion in a function that explores the neighbors of a tile, continuing to explore until it reaches a bomb-adjacent tile
- Engineered game logic in JavaScript, relying on Object Oriented Programming techniques

## Education

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### App Academy Open

Self-paced bootcamp covering Ruby, Rails, JavaScript, React, data structures, and algorithms  
Currently mentoring another student, meeting with her weekly to answer her questions

### California Institute of Technology

Pasadena, CA

M.S. in Geobiology, 2013

Awarded a NSF Graduate Research Fellowship

Published research as the first author of a paper in a peer-reviewed journal

### Harvard University

Cambridge, MA

B.A. in Earth and Planetary Sciences, cum laude in field, 2011

Courses included COMPSCI 50: Introduction to Computer Science

## Work experience

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### Risk Management Solutions

Newark, CA

Senior Modeler (equivalent to Senior Data Analyst)

Oct 2017 – Sep 2018

Modeler

Oct 2014 – Oct 2017

Senior Analyst, Modeling

Sep 2013 – Oct 2014

- Increased model resolution by 100x by developing web crawlers to scrape and parse building data from real estate websites, and leveraging the Google Geocoding API to link data to locations
- Quickly iterated on model features by using R and SQL to implement data pipelines
- Developed a suite of QA scripts, based on discussions with stakeholders, that was adopted by my team