

# Melanie Davila

## SOFTWARE ENGINEER

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🏠 New York, NY

## WORK EXPERIENCE

### Memorial Sloan Kettering Cancer Center

Oct 2014 - Oct 2016

Research Study Assistant II  
New York, NY

- ❑ Managed over 300 pediatric oncology clinical trial enrollments and performed analyses of corresponding data, facilitating peer-reviewed publications and contributing to outstanding performance during audits

### RUCDR Infinite Biologics

Dec 2013 - Jun 2014

Laboratory/Technical Assistant (Temporary)  
Piscataway, NJ

- ❑ Performed SNP analyses on DNA samples, gathering data regarding human susceptibility to disease and contributing to successful fulfillment of data requests from researchers

## PROJECTS

### midSoul | PostgreSQL, React.js/Redux, Rails

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

A full stack, single-page application for runners, inspired by MapMyRun

- ❑ Utilized Google Maps API encoded polyline algorithm to optimize database storage of geographic coordinates representing running routes, resulting in seamless UX when creating and viewing routes
- ❑ Structured FeedItem model to incorporate polymorphic associations, facilitating the aggregation of activity feed items and enabling effortless integration of other activities in the future

### (Re)Mission Possible | JavaScript, Easel.js

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

A browser-based antibody-flinging, cancer butt-kicking game

- ❑ Integrated DRY, object-oriented design principles resulting in maintainable code base
- ❑ Leveraged the Easel.js library and the attributes of its shape class in order to provide accurate collision detection, enhancing the UX

### Dynamic Record | SQL, Ruby

[GitHub](#)

A lightweight Ruby object relational mapping (ORM) library

- ❑ Incorporated metaprogramming techniques and SQL to facilitate database queries
- ❑ Improved user experience by providing seamless single and multi-step associations via implementation of object-relational-mapping

## VOLUNTEER EXPERIENCE

### Casa do Caminho

Jun 2013 - Dec 2013

Volunteer Educator (STEM)  
Xerém, Brazil

- ❑ Designed and implemented STEM and foreign language education initiatives, leveraging limited available resources to expose youth and community members to subjects not otherwise taught in the local region

## SKILLS

Ruby

Ruby on Rails

JavaScript

jQuery

React.js

Redux

SQL

Git

HTML

CSS

## EDUCATION

### App Academy

Dec 2016 - Mar 2017

Rigorous full stack web development course with ~3% acceptance rate

### Rutgers University

Sep 2009 - May 2013

B.A., Genetics

GPA: 3.73

Magna Cum Laude