

Melanie Davila

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Projects

midSoul | PostgreSQL, React.js/Redux, Rails

[Live](#) • [GitHub](#)

A fullstack, single-page application for runners, inspired by MapMyRun

- ❑ Optimizes database storage of geographic coordinates representing running routes via encoded polyline algorithm available through Google Maps API
- ❑ Facilitates aggregation of activity feed items using a polymorphic FeedItem model and custom SQL queries

(Re)Mission Possible | Javascript, Easel.js

[Live](#) • [GitHub](#)

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

- ❑ Integrates DRY, object-oriented design principles
- ❑ Optimizes drawing the HTML5 canvas element by solely redrawing objects that changed with the Easel.js library

Dynamic Record | SQL, Ruby

[Live](#) • [GitHub](#)

An ORM inspired by the ActiveRecord pattern of Ruby on Rails

- ❑ Incorporates metaprogramming techniques and SQL to facilitate database queries
- ❑ Implements object-relational-mapping and provides seamless single and multi-step associations

Skills

Ruby

Ruby on Rails

JavaScript

jQuery

React.js

Redux

SQL

Git

HTML

CSS

Education & Training

App Academy

December 2016-March 2017

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

New York, NY

Rutgers University

September 2009 - May 2013

Bachelor of Arts in Genetics

New Brunswick, NJ

GPA 3.73, Magna Cum Laude, Curriculum Highlights: Statistics for Research

Work Experience

Memorial Sloan Kettering Cancer Center

October 2014 - October 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

December 2013-June 2014

Laboratory/Technical Assistant

Piscataway, NJ

- ❑ Managed thousands of biospecimens and performed SNP analyses on DNA samples, aiding in successful fulfillment of biospecimen and data requests from researchers

Volunteer Experience

Casa do Caminho

June 2013-December 2013

Volunteer Educator

Xerém, Brazil

- ❑ Performed 3-5 weekly twenty-four hour shifts to supervise orphans and at-risk youth
- ❑ Designed and implemented science and foreign language education initiatives, exposing youth and community members to subjects not otherwise taught in the local region