Smith Freeman

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Projects

Locus   Live | GitHub

Aesthetic-conscious media-sharing platform for artists to post original works, built with Ruby on Rails and Backbone.js

- Twitter-inspired follow functionality with robust profile feature and media upload (image, audio, and video) to Filepicker
- Dynamic tagging system enables search functionality and user-driven discipline and media categorization
- Extends Backbone.js `View` class to construct `CompositeView` class that recursively handles adding and removing subviews
- Authorization security overrides `User#password=` to store BCrypt password

Asteroids   Live | GitHub

Browser implementation of the classic 1970's arcade game, built with JavaScript

- Includes `inherits` method to establish inheritance between classes
- Leverages HTML5 Canvas for a friendly user-interface
- Implements vector-addition and trigonometric calculations for intuitive object-movement

MildlyRails   GitHub

Reproduction of Ruby on Rails' basic functionality, built with Ruby

- Implements Ruby's meta-function `define_method` to elegantly generate necessary methods
- Uses JSON serialization and parsing of data to implement cookie functionality

Skills

Ruby Java Scala
Ruby-on-Rails Backbone.js Javascript jQuery
RSpec SQL Haskell Standard ML git
HTML CSS R LaTex

Experience

Galbraith Lab, OHSU   May 2014 - September 2014
Research Assistant   Portland, OR

- Developed lab-specific method to produce fluorescent 3D collagen matrix for high-resolution microscopy
- Performed statistical analysis (R, imageJ) to discover protein morphology heterogeneities
- Used bioinformatic tools to develop novel and viable genetic clones

Shampay Lab, Reed College   2013 - 2014
Undergraduate Research Fellow   Portland, OR
Thesis: Interaction of Shelterin Proteins PinX1 and TPP1 in *Xenopus laevis*

Education

App Academy   2014
Full Stack Web Development   San Francisco, CA

Reed College   2010 - 2014
Bachelor of Arts in Biology, GPA 3.07   Portland, OR
Academic Commendation, Undergraduate Research Grant

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