Sam Schaack

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samschaack.com | github.com/samschaack

Recent Projects

redditclone – psireddit.com | github.com/samschaack/redditclone

· wrote custom SQL queries for front page and sub pages in an effort to avoid n + 1 queries.
· wrote full single-page auth in Backbone.js.
· wrote functions for mouse-drag-expandable images and infinite scroll instead of using libraries.
· conceived of and implemented the features 1) intra-site tabs (useful for a fully single page site) and 2) a site navigation bar, present on every page, that is activated by certain letters and allows the site to be entirely and smoothly keyboard-navigable.
· used css to implement a simple solution for infinite nested comments.
· learned a lot about how front-end and back-end frameworks interact, and what the proper role is of each. Making rails and backbone play nicely together on this scale is challenging.

asteroids – samschaack.com/asteroids.html | github.com/samschaack/asteroids

· conceived of and implemented a large map (as opposed to the typical screen-size map) with ship held always at center-screen.
· implemented gravity and collision physics. Collision between two moving bodies was particularly challenging.
· wrote various optimizations (mostly related to not calculating properties of or drawing objects unnecessarily). This allowed the map size to be very large and contain many asteroids without affecting performance.
· currently in the process of writing a node server for massively-multiplayer functionality.

Skills

· ruby, rails
· javascript, jQuery, Backbone.js
· SQL
· HTML/CSS
· git
· music production utilizing FL Studio - samschaack.com/music.html

Education

bachelor of science, physics - University of Washington - 2009-2013
minor in math

· physics: electromagnetism, quantum mechanics, special relativity, analog/digital circuits

· math: multivariable calc, diff eq, linear algebra, linear analysis, fourier analysis, statistics