

Austin Young

austinyoung.co
youngaustin.d@gmail.com | 973.902.5190
1805 5th St., Berkeley, CA

PROJECTS

REGATA | regataregata.github.io

From-scratch JavaScript implementation of regular language expressions and graphical representation of their automata with Cytoscape.js

- Implemented bidirectional NFA-DFA conversion, bidirectional regex-DFA conversion, DFA minimization, expression parsing and expression simplification
- Used caching and closures in DFA constructions to avoid state indexing

MANIFOLD | manifold.cc

Web app for task/project management and collaboration for academic research

- Monkey-patched Backbone collections to enable dynamic front end search for fields likely to be queried many times per session
- Wrote dynamic overridable autocomplete from scratch for task assignment
- Wrote user authentication using BCrypt gem with hashed and salted passwords

BRAP | austindyoung.github.io/BRAP

Original HTML5 Canvas physics game

- Generalizes the topological fundamental polygon to admit 4096 edge mappings for playing field

FRONT-STAGE | github.com/austindyoung/front-stage

jQuery plugin and Backbone Collections extension for form dynamics and front-end searching

- Prevents multiple fetches from the database per form submission
- Dynamically produces matching results and autocompletes from input, while allowing multiple models to be staged per input, and includes default submission

SCALEX | github.com/austindyoung/DFA-Regex

Scala Implementation of regular language expression matching

EDUCATION

REED COLLEGE | B.A. Mathematics

May 2013 | Portland, OR

- Thesis: *The Finite Sums Theorem: a Topological Approach* | compactification.co

WORK EXPERIENCE

PRIVATE TUTOR | Math and Philosophy

2013 - 2015 | Bay Area, CA

- Developed custom extracurricular lesson plans and assignments for gifted students seeking enrichment materials
- Two students were accelerated one semester in math

INTERN | Perkins Coie, LLP

Summer 2011 | San Francisco, CA

Supervisor: Michael R. Gotham, Director of Recruiting and Retention

- Collected market, industry, company and other demographic information
- Reviewed, summarized and analyzed industry trends

Github: github.com/austindyoung

LinkedIn: [linkedin.com/pub/austin-young/104/2a4/291](https://www.linkedin.com/pub/austin-young/104/2a4/291)

SKILLS

Ruby
Scala
Ruby on Rails
Javascript
Backbone.js
OO-design
jQuery
SQL
HTML
git
CSS
Haskell

COURSEWORK

Programming
Language Theory and Design
Algorithms and Data Structures
Combinatorics
Topology
Abstract Algebra