Ryan Mark

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EXPERTISE

Ruby, Rails, Sinatra, RSpec, JavaScript, JQuery, React, HTML5, CSS3, SQL, Git, AWS, Heroku, MS Excel/VBA

EDUCATION

App Academy, 2017

2000 hour coding intensive program, <3% acceptance rate

Northwestern University - Evanston, IL, 2014 BA - Economics, Math Course Highlights - Graph Theory, Linear Algebra Number Theory, Real Analysis, Econometrics

EXPERIENCE

Data Analyst NPD Group

June 2016 - Mar 2018, Port Washington, NY

- Monitored Tech industry sales trends via custom and pre-built database pulls, resolved inaccuracies, and ultimately delivered consistent client satisfaction for data across assigned sectors
- Introduced string matching algorithm to identify likely mismatches in database and distributed results in weekly reports to team members
- Coordinated extensively with teammates to develop Sharepoint site that stores documentation regarding their current projects, responsibilities, and the nuances of the sectors they oversee

Regional Sales Associate

AXA Distributors

Nov 2014 - Jun 2016, Jersey City, NJ

- Developed VBA program that captures new business opportunities from a large dataset and compiles them into a formatted report, saving coworkers an hour per week in manual data entry
- Managed a territory of 500 financial advisors to generate \$20m in new variable annuity contracts per month, exceeding production targets
- Conducted presentations and meetings with advisors to help position AXA products within their clients' investment strategy

Global Supply Chain Intern

W.W. Grainger, Inc

Jul 2013 - Sep 2013, Lake Forest, IL

- Conducted competitive research analysis and customer surveys to determine prioritization of potential value-added services
- Built Sharepoint site used as the primary tracking resource for projects undertaken in Grainger's international supply chains

PORTFOLIO

Soundstorm

Live Site | Github

Single-page Soundcloud-inspired web app built with Rails backend and React/Redux frontend

- Leverages AWS S₃ and Paperclip for audio and image uploads, minimizing server-side storage footprint and facilitating graceful scaling
- Seamlessly integrates the main audio player, waveforms and play/pause buttons through the Redux state, allowing for continuous playback across the site
- Fetches track lists dynamically from the database based on user navigation, supplying filters through AJAX requests and re-using the React track list component for DRY code

Free Samples

Live Site | Github

Javascript application for interactively visualizing random sampling algorithms

- Includes demos and explanations for Poisson Disc, Mitch's Best Candidate, Uniform, and Uniform Random sampling algorithms
- Extracts pixel data from an original image for each randomly sampled point and re-renders it with different effects, including voronoi mosaic pattern generated with d3.js
- Features optional user image upload to be re-rendered with different sampling/visualization effects

Flight Mapper

Live Site | Github

Single-page Sinatra app for searching available flight routes and saving/sharing trips taken

- PostgreSQL database hosted on AWS RDS to reliably accommodate tens of thousands of records assembled from <u>OpenFlights.org</u>
- Performs AJAX calls to Heroku-hosted server, retrieving route data and plotting it via the GoogleMaps Javascript API

Connect₄ Al

Github

CLI Connect4 game built with Ruby, featuring a highly optimized computer player able to search 20 moves ahead

- Search depth made possible through several minimax optimizations, including alpha-beta pruning, transposition tables and iterative deepening
- Utilizes bitboard representation for low memory footprint and efficient board operations