

Alexander Manning

Full Stack Engineer

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Skills

Languages

- JavaScript
- Ruby
- SQL
- HTML5
- CSS3
- Git

Technologies

- Node
- React.js
- Redux
- Express.js
- Ruby on Rails
- jQuery
- D3
- Rspec
- Heroku
- Bcrypt

Database

- MySQL
- Postgresql
- MongoDB
- SQLite3
- SQL Server

About

A former Industrial Engineering Manager who has changed careers to pursue his passion of programming and data analysis.

Employment

Paramit Corporation, Morgan Hill, CA

07/2010 – 09/2016

Industrial and Systems Engineering Manager

- Project Manager for a cross-functional team that redesigned the mechanical manufacturing process by creating a system controlled assembly application.
 - Increased throughput, reducing per unit assembly times up to 60%, leading to an average labor savings of 300 worker-hours per month.
- Programmed and implemented an electronic scheduler, using SQL and VBA, to ensure kit production kept proper pace with the assembly lines' component demands. The average cycle time for kits was reduced by over 10 days per kit, 25% of their aging.
- Designed and programmed Engineering Change Order (ECO) reporting application using SQL/FoxPro. The ECO cycle time was cut from six weeks to one, due to system verification and follow up of task completion.

Projects

AirDnG (D3, React.js, Redux, Express, MongoDB)

[Link](#) | [Github](#)

Interactive Visualization of AirBnB's Listings

- Featured in [CurbedSE](#), a Vox Media publication for Bay Area housing.
- Employed D3's force simulation to provide an interactive word graph, in which users can find common descriptors and phrases used in listings
- Implemented React-Redux cycle to allow for instantaneous updates to graphs, providing a streamlined interactive experience for the user.
- Created backend Ruby script to efficiently analyze and format tens of thousands of listings to find common words and phrases.

Found Sounds (React.js, Redux, Ruby on Rails)

[Link](#) | [Github](#)

A responsive, single page concert viewer, displaying live shows based on location

- Utilized Google Maps API to create an interactive map of concerts, filtering markers and data based on map bounds, date, and user.
- Implemented AJAX requests to RESTful backend to allow for filtering and displaying of data in real time.
- Optimized front end performance through utilizing jBuilder to provide store variable data in a format which removed the need for additional front-end manipulation.

Katamari (JavaScript, jQuery, Howler.js, Easel.js)

[Link](#) | [Github](#)

Front end game, providing an audiovisual experience for the player

- Implemented an elastic-collision engine, where game pieces bounce off the walls and each other in a physically accurate way.
- Optimized collision detection through the implementation of a grid system, eliminating extraneous checks, and reducing total execution time by over 10%.
- Utilized Howler.js to play curated chimes during collisions, allowing for unique musical experience with each play.

Education

Villanova University

Six Sigma Black Belt Certification, Certificate VIL039905, February 2016

University of Michigan - Ann Arbor

M.S.E. in Industrial and Operations Engineering, May 2009

B.S.E. in Industrial and Operations Engineering, Magna Cum Laude, May 2008