Nathan Johnson

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Experience

Meshify · Apr 2017 -Present
Software Engineer
- Launched a completely new revamp of an IoT SaaS product with event-driven architecture, built with Riot.js, Reframe.js, and Golang with relational and NoSQL databases
- Oversaw the launch of a pilot program that scaled from ~500 sensors to ~20,000 sensors with negligible latency
- Created amazing experiences for users by developing UI and UX for Meshify's Admin and Dashboard web apps
- Reduced scripting time on large tenants by up to 90% by writing a fast-loading SDK that fetches, filters, and loads thousands of relational data points on demand
- Implemented Google Analytics tracking code to record application-specific data into custom reports for enrollment program participants
- Brought dynamically changing (<1sec) data views to a dashboards across the platform by utilizing WebSocket publish/subscribe technology

Keller Technology Corp · May 2016 - Sept 2016
Electrical Engineer
- Managed and optimized projects for automated custom machinery in telecommunications industry
- Created upgrade kits for safety PLC's in a customer facility, shipped on time
- Utilized customer input and management decisions, resulting in engineering goals met

ATS Automation · Feb 2015 - Jan 2016
Controls Engineer
- Optimized Siemens PLC's for automotive assembly lines using Ladder, STL, and GRAPH logic circuits
- Interfaced external devices (robots, servos, nutrunners, presses, heaters) to PLC masters
- Wrote specialized code for specific movements and routines, such as bolt torquing, elevator movement, servos, presses, and pick & place

Fives DyAG · Jan 2014 - Feb 2015
Robotics Engineer
- Provided effective and fast production support for automated manufacturing lines in high intensity environments, decreasing cycle time
- Programmed robots in proprietary languages and increased path speed/accuracy in material handling applications

CB&I · Jan 2013 - May 2013
Robotics Engineer
- Managed projects for a large manufacturing plant that specializes in plastic polymers

Skills

- JavaScript
- Ruby on Rails
- React.js
- Riot.js
- CSS
- Redux
- Postman
- SQL
- Git
- Golang
- HTML
- Swift
- Bootstrap
- Redis
- jQuery
- npm(Node.js)
- C
- Firebase
- Visual Basic

- Contributed to the upgrading of plant fire alarm systems and electrical control valves for moving and preparing of product

Education

App Academy · San Francisco, CA · November 2016 - February 2017
Full-stack web development course
- Rigorous 1000-hour web development course with <3% acceptance rate
- Topics include: Rails, JavaScript React, TDD, scalability, algorithms, OOP, coding style, single-page apps, and web development best practices.

Clemson University · BS · Electrical Engineering · Merit Scholar · 2012
- **Curriculum Highlights**: Circuit Theory & Design, Systems Programming, Electronics, Assembly Microcontroller Project, Electromagnetics

Projects

TuneHub · website · github
Fully-featured music-sampling site with song player, search, and user authentication
- Created a Ruby on Rails REST API that controls user, artist, song, and follow data on PostgreSQL tables
- Developed a client-side React.js application that requests data from the API and displays it on modular web components
- Pulled in relevant song and artist seed data through Ruby's RSpotify wrapper

Penelope the Penguin · website · github
Javascript
Endless survival game based on a classic helicopter game but with a twist
- Created a physics engine that models Flappy Bird and reverses gravity
- Formulated algorithms for swimming mechanics and impact detection
- Rendered shapes representing penguin, walls, game background, and obstacles

aNSR · website · github
Polling app for friends that allows users to post and vote on contentious questions
- Implemented full user authentication with a Firebase backend/database
- Built in a question, answer, and vote views in Swift 3 that query the database
- Designed a clean and colorful data visualization of vote data

Meshify Admin · website
Web admin app (Riot.js) to interface with Carbon API (Golang)
- Fetched resources from relational database, displaying them in lists with full CRUD functionality
- Gave users full control of a complex file and node hierarchy for their organization's IoT SaaS Platform
- Built a permission based role system with security in mind
- Implemented websockets to fetch incoming sensor data from devices in the field through MQTT protocol

Meshify Dashboard · website

Responsive Dashboard (Riot.js) for past and present data values and trends

- Developed alarm based app showing severity, time, and sensor location info form the Carbon API
- Utilized on-demand fetching system to only fetch data for sensors currently displayed
- Implemented templating system that lets users design their own custom Riot.js components for displaying views
- Kept responsiveness in mind to ensure a clean UX on desktop or mobile