

Michael Ries

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Junior full-stack web developer with a passion for constructing complex systems from simple beginnings. When I was about 11, I taught myself to program and fell in love with it. After a successful career in Electrical Engineering, I gave it up to pursue software development. With experience using Ruby on Rails and JavaScript-based programming, I also bring strong skills in project and time management, analytical problem solving, and communication. I hope to apply these skills to help a mission-driven organization improve our world.

TECHNICAL PROJECTS

Dive Log Redux - [Github](#) | [Demo](#)

A Web-based RESTful CRUD application for tracking data collected by SCUBA divers for their dives and dive sites.

- + Stores and retrieves data from a custom Rails API, with data validation.
- + Authenticates users with OAuth2 and JSON Web Tokens.
- + Implements a single-page application using React and Redux featuring Bootstrap-react for styling.

Learn Companion - [Github](#) | [Demo](#)

A companion app for students enrolled in the Learn full-stack online curriculum, enabling them to track progress, take lesson-related notes, create custom tags, and search through the materials.

- + Built using Ruby on Rails and ActiveRecord to provide a backend API and secured with OAuth2.
- + Provides a responsive front end user interface through JQuery and AJAX calls to the backend.
- + Features bootstrap for page layout and navigation.

Pooch Positive Training - [Github](#) | [Demo](#)

Online storefront for a dog training company, featuring account management, customer contact form, client management application, drag-and-drop dog thumbnail, cropping/resizing, and upload.

- + Constructed with C#, .NET, MVC architecture and RESTful conventions to deliver content.
- + Utilized Razor and Entity Framework to construct views on the back end.
- + Employed Bootstrap and JQuery for the client-side including validation, and image manipulation.

TECHNICAL SKILLS

Ruby, Rails, React, Redux, Github, C, C#, VB, Javascript, SQL, CSS, HTML, MVC, .NET, Entity Framework, JQuery, Bootstrap, JSON, AJAX, Angular 2, Typescript

EMPLOYMENT HISTORY

Sunedison Semiconductor, Saint Peters, Missouri

From Research Scientist to Associate Fellow, April 1996 - June 2016

- + Contributed to and led yield improvement, cost-reduction, and product development activities to achieve revenue increases exceeding \$200,000,000.
- + Acted as the primary technical interface with 6 key customers to develop new product requirements, to report progress, and to oversee more than 14 innovative development projects.
- + Created 7 engineering tools and database systems to enable rapid data mining, troubleshooting, analysis and reporting.
- + Designed and conducted experiments that increased our understanding of critical processes, resulting in 12 issued patents.
- + Communicated results to colleagues, management, and customers through 26 internal and external publications and many presentations.
- + Wrote procedures and technical documentation as part of the rigorous ISO9001 quality management system.

EDUCATION

Flatiron School - 2017

- + Full Stack Web Development, Ruby on Rails and JavaScript online program

Javaonline.org - 2013

- + Javaonline.org, Certified Professional JSP Developer

University of Illinois, Urbana, IL

- + Ph.D. Electrical Engineering, MS Electrical Engineering, BS Electrical Engineering