# **Adam Bourg**

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# Summary

I'm extremely passionate about building highly tested, documented and scalable solutions. I work well in team environments as a contributor. I love writing software especially for the web. My expertise is Javascript and Ruby. I'm learning Elixir and Phoenix on my personal time and would love an opportunity to work on an Elixir project.

# **Technological Competencies**

### Languages & Frameworks:

• Ruby, Javascript, CSS, HTML, SQL (Postgresql and MySQL), Bash, ESI, PHP, Java, JSON, XML, Protractor, Node, Backbone, Ember, Chai, Mocha, jQuery, Angular, Rails, Express JS, Bootstrap

### Tools:

• Sublime, iTerm, git, zsh, Heroku, Akamai, Blazemeter, Github, Gitlab, Jenkins, Chrome Dev Tools, Firebug

#### Gems:

• Pry, active\_record\_query\_trace, rack-mini-profiler, flamegraph, bullet, memoist, rails\_12factor, brakeman, capybara-screenshot, Factory Girl, jRuby, Rack, Thin, Puma, Webrick, State machine, Passenger

## Testing tools:

• Apache Benchmark, Grinder, rspec, protractor, mocha, jasmine, protractor, capybara

# Applications:

• Rally, Jira, Trello, Slack, Pivotal Tracker

## Server Environments:

• Nginx, apache, Ubuntu, Redhat, Debian, Mac OS, Linux, AWS, Heroku

### Philosophy:

• BDD, TDD, Agile, Scrum, XP, Waterfall

# **Professional Experience**

## Senior Software Engineer, Architect and Team Lead (Contract)

October 2016 - Present

Dish Network on the Sling TV Project -- Denver, Colorado

- Designed and lead a team to implement DDoS protection for all external APIs in F5
- Designed and built encryption system to ensure all PCI customer data is locked down using AES 256 by building a reusable and extendable Ruby Gem
- Implemented integration with Jenkins and Code Climate for automated builds to all lower environments
- Frequently presented for lunch and learn's on topics including performance, security and code quality

# **Senior Software Engineer (Contract)**

April 2016 - October 2016

Active Junky -- Denver, Colorado

- Reduced SQL queries from Active Record from over 2000 per page down to under 100 with only about 200 lines of code modified. Used the gems: active\_record\_query\_trace, rack-mini-profiler, flamegraph, bullet to track down and identify issues where the code is really slow and inefficient. I determined where Active Record did not make sense and replaced it with custom SQL queries for calculations and data formatting.
- Used Apache benchmark with gems mentioned above to identify and eliminate 100 N+1 queries on the homepage to 5 queries to load all the homepage data in an average of 1 second under constant load.
- Using New Relic determined we were wasting 20% response time over a month by waiting for API requests to complete with an average page load time of 16 seconds. Using Ruby and Resque I designed an automated worker process that is threadsafe to write the objects to memcache and ensure that the caches are always warmed before a user visits the page
- Took the backend Rspec test suite from 70% to 85% by using code coverage tools and determining places where we were using weak tests
- Part time pair with two Junior Developers, one a recent gSchool grad, helping them understand good software design and become better engineers

## **Senior Software Engineer (Contract)**

September 2014 - April 2016

UnitedHealth Group -- Optum Technology, Broomfield, Colorado

- Built a HIPAA compliant call center application in javascript, NodeJS and Backbone JS for all Kaiser Permanente agents which generated \$50 million for UHG as part of their next generation call center application. It was used for open enrollment for Kaiser for 2015, resulting in over \$100 million in sales.
- The Kaiser application is a web GUI that runs on desktop and iPad browsers interacts with a Node JS service layer built to communicate with legacy systems written in SOAP and Java.
- Designed Version 2 of the call center application to support onboarding of over a dozen clients to support a multi-tenant application, leveraging a reusable module pattern in Javascript and backbone
- Built the new member portal in Ember JS for Harken Health based in Georgia. Was responsible for designing User profile and Email pages.
- Designed and implemented the HIPAA compliant encryption system used for storing PHI and PII. I designed a reusable Gem for the company that allowed developers to determine what fields should be encrypted using a Rails model attribute. Ex: attr\_encrypt:name, :social\_security\_number
- Implemented Automated CI using Jenkins for automated builds integrated into Gitlab.
- Built a HIPAA compliant ETL application in Ruby on Rails 4.0 to load medical history of 10 million patients to calculate anticipated health costs for the next year.
- Designed and built a HIPAA REST API in Ruby on Rails 4.0 using Grape and swagger to interface to a high level REST service layer to help over 20 million consumers figure out what is the best type of health insurance based off their needs and usage.
- At United I had extensive use of Javascript, Coffeescript, Ruby, Ruby, on Rails, Node JS, Backbone and Ember JS

### **Software Engineer**

March 2013 - September 2014

Gloo, Boulder, Colorado

- Built a Javascript single page application using Twitter Flight and jQuery to communicate with a REST API.
- Built a HIPAA compliant REST API in Rails 3.2 using controllers and Jbuilder that delivers JSON content to thousands of Android and IOS clients. Automated documentation through the use of Swagger.
- Built a customizable dashboard in Angular that allowed users to change what content they could see on the home page.

### **Web Developer (Contract)**

March 2012 - March 2013

U.S. Department of Agriculture - APHIS, Fort Collins, Colorado

- Led a team of developers and designers to develop a platform and digitize scientific data relating to specific pests and the damage they cause to specific commodities.
- Collaborated with the agricultural pest survey to create a web-based search tool in the MVC framework for PHP Yii, that serves 25 nations worldwide.
- Built an automated deployment process using Ruby to move code from staging to production, automated backups and system configuration / deployment.

### Web Developer

October 2010 - March 2012

Colorado State University Recreation Center, Fort Collins, Colorado

- Built an online employment application using Javascript and ColdFusion to receive 1000 applications annually and reduce paper waste.
- Built an online application using ColdFusion to track over 200 employee medical certifications to ensure legal compliance.
- Managed the recreation center website which received over 400,000 visitors annually.
- Designed and built a new mobile friendly website using responsive design, Javascript and CSS media queries that allowed students to see when the facility was open and different services were available in real time from their mobile and desktop devices.

## **Lead Web Developer / Co-Founder**

June 2009 - June 2011

NextCoast, Lafayette, Colorado

- Developed and designed marketing sites and print materials for various products and services.
- Designed and developed the new UX for a custom community platform using Javascript, jQuery and PHP Smarty Templates.

### **Network Administrator**

March 2007 - August 2010

Rocky Mountain Christian Church, Niwot, Colorado

- Planned, purchased and installed a \$300,000 microwave system to link two locations with a site-to-site VPN as a backup and a \$1,000,000 Cisco network.
- Automated system configuration and deployment by using Ruby to manage and control system configuration.

## Education

Colorado State University

Bachelor of Science in Applied Computing Technology