Ryan T. Hosford
http://ea.rthbound.com

1621 13th Street South
Birmingham, AL 35205
Tel. 205.837.4373
tad.hosford@gmail.com

Education   *Bachelor of Science in Electrical Engineering (B.S.E.E.)*, Fall 2004 – Winter 2009
- University of Alabama at Birmingham
- Studied electromagnetics, electrical machinery, analog & digital circuit analysis & design, software, digital signals processing, radio signals
- Senior Project: Built lab equipment to demonstrate Nyquist's sampling theorem to future signals & systems students
- GPA 3.0/4.0

Summary of Qualifications
- Experienced lead developer
- UX Design and Development
- Linux, OS X, Bash, Ruby, Rails, jQuery, HTML, CSS, HAML, ERB, Assembly, C/C++, Java, Matlab
- Testing frameworks: Spinach, Cucumber, MiniTest, RSpec
- Familiar databases: PostgreSQL, MySQL, MongoDB
- Apache Solr, Sunspot, ~~Heroku~~, Redis, Sidekiq
- VIM
- HIPAA Certified

Work Experience

Freelance Development (Birmingham, AL)   *Software Consultant and Developer*, 09/2012 – Present
- Architected, built, and maintained mountable Rails engine to enable extending any Rails application with support for managing confidential patient health information.
- Architected, built, and maintained application, gems, and rails engine for Centers for Medicare & Medicaid Services (CMS), to reduce the number of hospitalizations and deaths among Medicare recipients in Nevada's 50 nursing home facilities
- Architected, built, and maintained application, gems, and rails engine for CMS to incentivize and reward healthy behaviors among Medicaid recipients (programs for Children's Heart Center, YMCA, Amerigroup)
- On a similar legacy application, implemented features to surface patients' statuses relating to healthy and elevated ranges concerning the patient's measurements, measurement dates, lab results, gender, and health.
- Upgraded legacy Rails application to Ruby 2.0 and latest version of Rails 3
- Moved legacy application's data from MySQL to PostgreSQL
- Worked on rewrite of a legacy PHP/MySQL application using Ruby, Rails, and MongoDB
- Completely redesigned data structure to favor a stronger document structure with more natural benefits for the use case
- Worked on a new survey administrator application using new document structure, using Rails, Backbone, and MongoDB
- Wrote Ruby interface for a client's API, eliminating application's dependency on JRuby and Java Archive files
- Published open source solutions when appropriate

Isotope 11 (Birmingham, AL)   *Ruby, Ruby on Rails developer*, 09/2011 – 09/2012
- Developed web applications using Ruby, Rails, jQuery, MySQL, PostgreSQL
- Rapidly developed as an asset to begin consulting on clients' projects (one month)
- Maintained average ~95% external billing rate while reaching more than 300 hours overtime
- Built and tested software for various internal and external projects

The City Grill (Gulf Shores, AL)	*Bartender*, 05/2011 – 08/2011
Tacky Jacks (Gulf Shores, AL)	*Bartender*, 05/2011 – 08/2011
Crowder Gulf, Operation Deep Clean (Gulf Shores, AL)	*Field Technician (BP Oil spill)*, 02/2011 – 04/2011
The Original Oyster House (Gulf Shores, AL)	*Bartender*, 04/2010 – 08/2010

Open Source contributions

- Created Rubeuler, a Ruby gem that evaluates solutions to Project Euler problems and returns useful diagnostics
- Engaged in development of Suitcase, an API wrapper for the Expedia Affiliate Network
- Created DataScienceTheater3000, an API wrapper for the Data Science Toolkit
- Created eenie_meenie, a Ruby gem to handle random assignment of a member to one of a few experimental groups.
- Created PayDirt, an awesome service object pattern I published as a gem
- Created Konamio, because I wanted to see how I'd solve the problem of requiring the konami code in Ruby
- Created ProtectedRecord, a gem to handle filtering changes, creating change requests on behalf of the current user, and creating change audits
- Created super_deduper to tell me when the database might already contain something a client wants added
- Created DependencyTracker, a simple app to help with quickly disclosing all your open source dependencies' licenses to lawyers

Software Engineering Projects

HealthyNV (Medicaid), architect & sole developer   *jQuery, Ruby 2.0, Rails 3.2*, 11/2012 – Present
- Runs on JRuby or MRI with PostgreSQL
- Provides administrative and organization specific privileges
- Supports management of basic records
- Randomly assigns newly created patients to one of several experimental groups
- Creates reward transactions in an external system when users create records
- Provides csv export features

HealthyNV (Medicare), architect & sole developer   *jQuery, Ruby 2.0, Rails 3.2*, 11/2012 – Present
- Runs on JRuby or MRI with PostgreSQL
- Provides administrative and organization specific privileges
- Supports management of records like: demographics, prescriptions, serious conditions, specialist referrals, orders for life sustaining treatment, hospitalizations, transfers, health risk assessments.
- Supports document upload and download, both as record attachments and attached directly to patients.
- Main interface reveals which patients are most at risk and which patients have the most urgent symptoms.
- Provides csv export feature

Mr. Arlo, architect & lead developer   *jQuery, Ruby 1.9.2, Rails 3.1, Heroku, Redis, Sidekiq*, 04/2012 – 09/2012
- Established relational structure for all persisted data models
- Designed user experience for and implemented an intuitive, unified buy-flow to support the sale of products through several APIs at once
- Interacted with various third parties' APIs: Expedia Affiliate Network, Open Table, Viator, 4 Square, Yelp, Instagram, Teleportd, and others
- Mitigated project delays by retasking resources, performing research, and communicating solutions
- Implemented look-ahead search to ensure a valid destination object is sent to each product search module
- Developed full-text search algorithms for products stored in local database
- Implemented interstitial to allow user interaction while products are fetched
- Defined process for updating user information as data is streamed asynchronously from Facebook's OpenGraph API
- Developed a suggestive search feature that improves results for a given user as knowledge is gained via user history or public APIs
- Contributed to open-source projects in order to support application requirements

Auto Parts Tomorrow, Ruby, Ruby / Rails developer   *jQuery, Ruby 1.8, Rails 2.3*, 10/2011 – 04/2012

- Provided geo-location feature, allowing client to offer a more aggressive shipping price earlier in the customer buy-flow with low risk
- Created a new shipping system, minimizing losses by requiring products with high shipping costs be shipped separately from products qualifying for discount programs.
- Improved search accuracy and performance by implementing Sunspot and developing algorithms to meet client's needs

University of Alabama at Birmingham, B.S.E.E. program   *Ruby on Rails, Matlab*, 08/2008 – 12/2009

- Using Ruby/Rails, developed mailers for a balloting application - an IEEE project
- Wrote Matlab script that analyzes an audio clip, identifies corruption in the frequency domain, and applies a notch filter at the correct frequency and bandwidth to restore the signal
- Wrote Matlab script to sample an image and determine whether the image contains some predefined pattern

* http://ea.rthbound.com/the_gremlin
* https://www.mrarlo.com