

JOSEPH FRAMBACH

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PROFICIENCIES

Front-End Development

- Foundations: HTML, CSS, Javascript; Attention to standards and specifications.
- Libraries and Tools: jQuery, Underscore, Backbone, Require.
- Currently learning about: How to best prepare for es6. Building a faster user experience by minimizing time-to-interaction. Improving event feedback on mobile devices with Material design principles.

Back-End Development

- Node and its common modules: async, socket.io, Connect with and without Express.
- MySQL and its antitheses, MongoDB and Redis.
- PHP: Transitioning 5.2 to 5.3 to 5.4 to 5.5. Familiar with Composer, PHPUnit, and Selenium.
- Python for its computation modules: numpy, scipy, QSTK for computational investing.
- Some frameworks like Wordpress and Rails, although I don't like to rely on them.
- Currently learning about: Django Rest Framework, Postgres, and AWS management.

Operations and Deployment

- CI and Deployment: Currently using Jenkins. Experimenting with Vagrant and Docker. Previously used Fabric.
- Servers and proxies: nginx and HAProxy for load balancing and traffic queueing.

EXPERIENCE

Trulia

September 2013 to Present

Senior Software Engineer

Building and maintaining desktop, mobile, and restful API experiences. Interviewing full-stack and senior candidates, focusing on javascript and MySQL. Significant involvement in several consumer services:

- **Zillow integration:** Post-merger data and widget sharing across very different systems.
- **Investment calculator:** Tools to decide between selling your home and becoming a landlord.
- **mWeb:** Node, Rendr, and Backbone isomorphic mobile site.
- **Pre-approval short form:** Connect highly qualified leads to mortgage lenders.
- **Mortgage rate table:** Affordability estimation and lender matching for home seekers.

- **User preferences:** Store arbitrary user preferences from input throughout the site.
- **Lender rotation:** Fairly distribute leads to several mortgage lenders.
- **Co-registration:** Extensible framework to upsell simultaneous third-party leads.
- **Review moderation:** Hold, archive, and accept user-generated reviews.
- **Independent projects:** PHP HBase bindings; Collaborative git conflict editor; Satis Composer repository.

ShowClix

June 2010 to July 2013

Senior Software Engineer

Ticketing software for event organizers, and front-end checkout for customers. Lead architect and developer for core administrative features:

- **Incentix:** Use Facebook and Twitter API to give discounts with social promotion.
- **Embed & Facebook checkout:** Embeds ShowClix into client website or Facebook page tab.
- **Merchandising:** Product selling and fulfillment platform used by C2E2 and Blue October.
- **Product bundles:** Groups tickets and merchandise, with flexible pricing and reporting options.
- **Membership:** Offers members-only tickets and discounts with client's external API.
- **Self-serve membership:** Sellers may import membership lists into ShowClix-hosted MongoDB.
- **Questions:** Sellers may ask questions to customers per-sale, per-event, and per-ticket.
- **Order fulfillment:** Queues shippable orders, verifies tickets, and tracks shipping to customers.
- **BOCA thermal printing:** Prints physical tickets using a BOCA printer, with collation options.
- **Email Outbox:** Sellers may draft and send emails to customers using TinyMCE editor.
- **Stress testing:** Uses Grinder and Linode API to replicate production and slam it with 50,000 users.
- **Local meetups:** Assist in hosting local node.js meetups, and social recruiting event, Engibeering.

United States Steel Corporation

May 2006 to June 2010

Business Services - Warehouse, Shipping, and Logistics

- Automated PDF report generation for inventory management and scheduling.
- Automated PDF generation for bills of lading, truck freight paperwork, and internal mill needs.
- Converted mainframe COBOL/AS400 programs into VB.NET web interfaces.
- Supported older ASP and J2EE applications for multiple teams.

EDUCATION

University of Pittsburgh

Spring 2008

B.S., Applied Mathematics and Computer Science with Honors

- Shape Recognition and Classification Using Fourier Descriptors
 - Shows methods for shape recognition and classification, for searching a database of shapes.
 - Explores properties of shape analysis to develop Shape Signatures and Fourier Descriptors.

- Question-Answering System using NLP for Google-hosted Competition
 - Python question-answering system analyzes text sources, generates and answers questions.
 - Pitt's three-member team entered CMU's competition, hosted by Google.
- Lifespan Persistence through Numerical Analysis of Nonlinear Systems
 - Explains iterative methods for finding approximate solutions of systems of nonlinear equations.
 - Second place in Pitt CS Day poster competition.

University of Pittsburgh

Fall 2008 - Spring 2012

M.S., Computer Science (Incomplete)

- Human-Computer Interfaces
 - Designed and built Arduino theremin using light sensor.
- Data Visualization and Modeling
 - Used Ruby on Rails and flot to show inter-hospital MRSA levels.

INTERESTS

Professional Development and Personal Accomplishments

- Toastmasters communication and leadership development, member. May 2014 - Present
- Stripe Capture the Flag v3.0. Aug 2013
 - Networking challenges: Distributed computing, Denial of Service protection.
- Stripe Capture the Flag v2.0. Aug 2012
 - Web challenges: SQL injection, CSRF vulnerabilities, SHA1 padding.
- Backpacked the Appalachian Trail from Georgia to Maine. Summer 2008
- Ran marathons in Chicago, Pikes Peak, Virginia Beach, Philadelphia, and Pittsburgh.
- Bicycled from Pittsburgh to Washington, DC, and Pittsburgh to Lake Erie.
- Competed and judged 24-hour Pitt Game Coding Competitions. 2007-2012
 - First place in inaugural competition, PyGame defense game.
- TIME Magazine: Person of the Year 2006
 - "We're looking at an explosion of productivity and innovation, and it's just getting started."*
- Boy Scouts of America: Eagle Scout Rank January 2004
 - Designed and built a 30-foot timber bridge which withstood Hurricane Ivan.