

# David Fayram

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I am software developer looking for interesting and novel challenges in the field. I consider my programming career to also be my hobby, and I pursue it with an eye towards new or overlooked programming languages & environments (e.g., Scala, Clojure, Erlang, JRuby, Haskell, Ocaml). My recent work has been heavily focused on product infrastructure, but I have worked on both forwards- and rear-facing software projects. While I am not afraid of leadership roles and do my best to be a leader in areas of my expertise, I also enjoy the opportunities of an environment where there are more experienced software engineers to learn from.

## Experience

### **SENIOR SOFTWARE ENGINEER: CROWDFLOWER, SAN FRANCISCO, CA** **2011-PRESENT**

Senior platform engineer for CrowdFlower, working on improving performance and revising architecture for a very large system engaged in collection and presentation of thousands of streams of data. Work has thus far included architecting horizontally scalable storage with high-speed retrieval characteristics, and improvements to real-time measurements of system performance.

### **LEAD ENGINEER: SIMPLE FINANCE LLC, SAN FRANCISCO, CA** **2010-2011**

Lead engineer for BankSimple, managing 2-3 employees and overseeing the technical direction for the company's infrastructure. Led design and development efforts, and functioned as liaison with partner companies for integration efforts. Helped to establish an engineering environment, policy, and practice from the ground up; including an open-source policy. Software engineering was mostly in Scala and Java, with some Clojure.

### **SDE II: MICROSOFT, SAN FRANCISCO, CA** **2008-2010**

After Powerset was acquired by Microsoft, I was placed in the organization at SDE II level. My initial job was Erlang support and porting. Transitioned to experience in C#, F# and .NET as Microsoft began porting key pieces of architecture to Windows.

### **SOFTWARE ENGINEER: POWERSET, SAN FRANCISCO, CA** **2007-2008**

Hired as a Ruby engineer to create and maintain bindings between semantic analysis software by Xerox/PARC and maintain organization and deployment of said codebase. Semantic analysis code ended up being very unstable and difficult to administrate, so several approaches were taken culminating in the creation of an Erlang-based generic service provider called "Katamari." This system took naive un-threaded Ruby & C services and provided a minimal-effort scaffold to bootstrap them into a monitored, highly available and aggressively healing distributed infrastructure.

### **SOFTWARE ENGINEER, MOG.COM, BERKELEY, CA** **2006-2007**

Mog "Backend" Engineer, designing and implementing a high-speed Ruby On Rails based XML-RPC stack (and API) for connection with client-level applications. Designing and optimizing database schemas (and related Ruby model structures) for both speed/memory efficiency and optimum semantic use. Also responsible for integrating with complex and dynamic Ajax "widget" system, an early example of flexible page layouts driven by direct user actions.

### **SOFTWARE ENGINEER, MA.GNOLIA.COM / TRIGGER CONSULTING** **2005-2006**

Sole full-time Ruby On Rails developer for Ma.gnolia.com's startup, as well as multiple Ruby on Rails contract sites for the Trigger Consulting side of the business. Rapid prototyping, integration with external templates, interface design and implementation were all primary focuses. Also implemented a system to use Latent Semantic Analysis to analyze and find relevant content in Ma.gnolia bookmark collections.

### **SOFTWARE ENGINEER, LOCKHEED MARTIN; CALIFORNIA** **2003-2005**

Primary responsibilities included UI design and software development for Weather Data Analysis tools using C, C++, Linux, Qt, and CORBA for product development and MIT Scheme for algorithm research. Also, code maintenance, testing and documentation for legacy libraries written in C and C++, using Ruby and Python for automation and improvement of these units.

## Education

University of California, Santa Barbara, California — Bachelor's of Science: Computer Science, 2003

## Skills

**Professionally:** Scala, Java, Clojure, Erlang, Ruby (& Rails), C, Scheme, Common Lisp, and C++ experience. Open source releases with Scala, Clojure, and Java, and Ruby. Basic understanding of common learning & AI algorithms (particularly pertaining to text analysis).

**Amateur:** Haskell, Ocaml, Objective-C, Photography (Urban, Nature, Portrait, Candid), Python, Technical Writing. Some experience with compiler & interpreter design.

## Open Source Releases

- <https://github.com/KirinDave/Clipping> - Simple persisting variables
- <https://github.com/KirinDave/Clothesline> - A Clojure re-implementation of Erlang's WebMachine
- <https://github.com/KirinDave/fuzed/> - An Erlang-based system to replace mongrel in distributed environments such as EC2. Please ask me about "Katmari" for more information on what happened to this project.
- <http://classifier.rubyforge.org/> - Small-Scale LSI Classification for Ruby (no longer maintained by me)

## Notable Activities

- Contributed to O'Reilly project (in progress) to write a book on Clojure.
- Involved in numerous side projects. Other side projects include Cocoa Applications, Scheme Applications, and Erlang Infrastructure. I am almost constantly researching and tinkering with new and different programming environments.
- Presented at RailsConf (<http://en.oreilly.com/rails2008/public/schedule/speaker/2833>) and ErlangFactory (<http://www.erlang-factory.com/conference/SFBayAreaErlangFactory2009/speakers/DaveFayram>) on the subject of my framework "Katamari."
- Informal and formal training in Macintosh Development. ADC membership. Particular interest in iPhone & iPad development.
- Urban and Candid photography, my Flickr collection is available with many Creative Commons images: <http://www.flickr.com/photos/davefayram/>
- A fan of coffee, both clarified and unclarified. I can competently make coffee via Siphon, Aeropress, Chemex, Aeropress, Swiss Gold drip, V60 and Woodneck. My daily coffee ritual was captured in a camera-demo music video here: <http://vimeo.com/16756543>
- Involved in the rescue and adoption of Racing Greyhounds and Jack Russell Terriers.
- Authorship of a paper on the subject of Network Intrusion Detection as it pertains to Mobile Agents, delivered to the MATA2002 conference in Barcelona, Spain. Entitled, "An Intrusion Detection System for Aglets."