# Michael Hamrah

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#### **Profile**

Software engineer adept at building complex yet scalable systems leveraging agile principles. Proven success driving technology in startup and large enterprise environments.

## Areas of Expertise

- Expertise of software development with practical knowledge of both event-based and service-orientated architectures leveraging various design patterns to build flexible, well written code for scalable, fault-tolerant deployments. Expert knowledge of modern web-focused systems including API development and RESTful services, caching infrastructure, data storage, client/server interaction, server/network management and background processing.
- Expertise with Ruby and the Ruby on Rails, Event Machine, and Sinatra frameworks including test driven development with RSpec and Tddium for continuous integration. Expertise with various gems and orms, open source frameworks, and running ruby in production environments for web, api, and background processing.
- Expert knowledge of API and class design, object orientated principals, multi-threaded programming, reflection, and dynamic code across both dynamic (Ruby) and statically typed (C#) languages. C# development using ASP. NET MVC and WCF along with Windows services using the TPL for queue-based applications.
- Front-end development mastery with javascript, html and css including ajax heavy web applications. Expertise with jQuery and higher level JS frameworks including Backbone along with css3 and html5. Fundamental knowledge of HTTP. Knowledge of cross-browser support and downgrading techniques.

- Proven agile leader with adopting and refining both Scrum and Kanban best practices. Leading developers and business stakeholders in a true lean/agile environment. Focus on agile code practices with GIT, continuous integration, and automated testing. Awarness of balancing short-term wins with long term focus to build truely adaptive systems.
- Advanced data development work with data modelling, including stored procedure/database optimization with Postgres, Sql Server, indexed views and various ORM tools. Experience with the Solr and ElasticSearch search engine along with applying nosql data stores CouchDb, MongoDb and Redis.
- Extensive experience with performance optimization and production debugging at all levels of the application stacknetworking, server, database, code bottlenecks and multithreading issues, instrumentation support, and client side optimization with http, html and javascript. Hands on experience with virtualization strategies and cloud based environments with Amazon Web Services and Heroku. Extensive use of New Relic for runtime analysis. History of partnerships with operations and hardware teams.
- Leadership in technology including strategic development for business needs, articulating ideas, technology selection, team management, developer mentoring, problem solving, conflict resolution and crisis management. Expertise in bringing together talented developers in a cohesive, team focused manner to power business.

### Work Experience

**VFILES** 

Consultant; Acting CTO

2012

- Consulted and Lead technology for early stage startup building a ruby-on-rails site in the fashion/media space. Built up an in-house development team and managed a consulting agency helping bootstrap the website.
- Architected and developed a variety of features leveraging Ruby on Rails on the backend with html5/jquery based front end. Application runs on Heroku with several AWS components and other cloud based services. Source control managed with git via github.
- Site features extensive use of caching infrastructure and background processing using IronWorker and delayed\_job. Search powered by ElasticSearch and features field boosting and various analyzers. Other backend servers include PostgreSql and Redis.
- Applied Lean Startup/Lean Architecture principles to the organization and brought site to private beta before planned departure. Assisted with product development and partnered with CEO to plan feature rollouts and prioritization.

Getty Images 2007-2012

Director, Software Engineering

• Report to the VP of Technology and lead a twelve person team in architecting and developing solutions for the Getty Images Sports, News and Entertainment division. Responsible for driving technology for Getty's fastest growing segment, with tools used globally by photographers, editors, sales, external partners and executives to manage all editorial content. Leader in the technology organization across geographic offices to drive Getty's success as a world leader in digital media.

- Architected a web-based workflow portal using ASP.NET MVC (started with beta, now on MVC3) using SOA principles allowing users to easily manage various enterprise systems in a unified, cohesive setting. Project replaced numerous, disconnected third party tools in order to unify Editorial technology and streamline workflow for a wide range of users. Architecture features asynchronous communication for long-running tasks, a multi-tier architecture, MVC Areas for codebase management and various jQuery and Knockout.js goodies for a smooth user experience where time-to-market is essential.
- Application architecture includes various n-tier applications developed using Domain Driven Design paradigms, glued together with IoC containers and backed with various unit tests. Service-Orientated applications feature WCF-based web services written with .NET 4.0 for cross-platform integration (ruby and java). Systems feature Sql Server including Service Broker for queue based processing, with open-source tools and frameworks. Search powered by Solr with MongoDb usage for specific functionality suited for nosql solutions. Hands on development with team in all areas of the system, from writing stored procedures to css and from initial design to production debugging.
- Engineered a highly scalable automated asset distribution system delivering 2+ million images per day via ftp or http supporting bursts of 200,000+ images/hour. System features dynamic code generation to support extremely fast calculation to route images based on any number of rules within seconds of receipt. Also supports metadata management, image processing, extensive tracking and is designed for elastic scalability.
- Work closely with various business units, including VPs, Executives, Architects, Project Managers and other Development teams to come up with both business workflow and technical solutions for Getty Images. Drive agile principles in an ever improving process to operate more efficiently.

**MediaVast, Inc.** Acquired by Getty Images for \$200 million in February 2007. Software Developer; Web Applications Architect

2004-2007

- Worked closely with CTO, Software Architect, and other executives in defining and developing overall software strategy, design, and business process modeling for the startup. Focused on the web stack and ensuring public facing websites are properly built and maintained. Site grew exponentially with a large, varied user base with an ever increasing photo library.
- Lead development under the Software Architect for an in-house digital asset and content management system designed using a custom MVC framework (.NET 1.1/2.0) including a server control library, data tier, application tier and theme engine written in C#. The framework was used in development of all MediaVast web applications including WireImage. com, which averaged 800,000 page views and 100,000 unique visitors per day. Extensive data modelling and database development work including replication and horizontal partitioning.
- Responsible for overseeing other developers, problem solving growth and infrastructure issues, defining specifications and requirements, enforcing standards, and making decisions on the software development process of the team.
- Development lead for consumer products and video for WireImage.com, which brought Flash video and custom built Ajax infrastructure to WireImage.com during the infancy of these technologies.
- Collaborated with senior personnel to define specifications and nonfunctional requirements for all development initiatives. Brainstormed various solutions and evaluated course of action for product development. Worked with Systems Engineers to support deployment and maintenance of various websites and back end applications.

#### Education and Activities

- Vassar College Bachelor of Arts, Computer Science, 2002 Poughkeepsie, New York
- Adventures in HttpContext blog at http://michaelhamrah.com/blog
- Interests include photography, golf, skiing, cooking, backpacking/hiking, and yes programming.