Michael Hamrah

email
mlh@michaelhamrah.com
web
michaelhamah.com
post
180 Sterling Pl. Apt 16
Brooklyn, NY 11217

Profile

I am a software engineer successful at building scalable, distributed systems for the web leveraging agile principles. My focus is on data modeling and storage, API design, and concurrent, asynchronous programming.

Expertise

I am proficient in several programming languages, specifically Ruby and Javascript, and have a long history working in C# and a short history in C++. I apply a test-driven approach to development, incorporating design and architectural patterns to build highly maintainable systems. My experience includes object-orientated and functional programming along with exploitation of VMs, runtimes and frameworks. I am developing proficiency in Scala and Akka along with the Go (golang) programming language.

I have extensive knowledge of web-based systems across all levels of the software stack. This includes Html, Css, and Javascript development and optimization; HTTP fundamentals; web servers (IIS, Apache, Nginx); caching techniques and tools (Memcache, Varnish, CDNs); various web frameworks and application servers (Rails, Sinatra, EM, Node/Express, ASP.NET MVC); RESTful and other web-based services; networking protocols and data compression; queue based systems; search servers (Solr, ElasticSearch); TCP/IP networking and optimization; cloud tools (Heroku, AWS, CloudFoundry) and both SQL (PostgreSql, SQL Server) and NoSql (Redis, Cassandra, MongoDb) databases. My career has been focused on leveraging these tools to build optimized, fault-tolerant systems that work under load at a global scale.

I have led teams of various sizes using Scrum and Kanban techniques, actively engaging with stakeholders to empower business. I have worked with key personnel to brainstorm, define, prioritize and measure features. My work has been to foster top talent, mentor junior developers, and recruit new hires. I constantly seek to bridge the gap between business and technology.

Starting in September of 2012 I traveled throughout the Middle East, Nepal, and Southeast Asia for six months, returning to the United States in March of 2013. You can read my blog on tumblr, The Great Big Adventure (http://thegreatbigadventure.tumblr.com/) and view photos on flickr (http://www.flickr.com/photos/Hamrah).

Work Experience

Freelance Software Engineer
April 2012 - August 2012

I assisted PolicyMic, a media startup, to scale their php based website on AWS to meet performance requirements for an actively growing user base and anticipated traffic increase from the US election. This involved a rollout, analysis, and education of New Relic; various database tuning and index work; implementation of a new caching tier via AWS ElastiCache; client-side optimization; network analysis; data modeling, Varnish implementation and page rendering optimizations. I developed a strong partnership with the business to understand the problem domain and create viable solutions to solve short and long term problems, teaching best practices and ways to think at scale.

I assisted the General Assembly, a NYC-based resource for software startups and developers, to mentor a team of developers for a pilot program to help student graduates gain real world programming experience. The primary focus was on developer collaboration in an agile environment. I had a hands on role in teaching students to work through development challenges, leverage SCM tools (Git/Github), implement TDD and understand Scrum.

I assisted VFILES, an early stage startup in social fashion media, by leading their technology team. I built up an in-house development team and worked with a consulting agency to bootstrap the website for initial launch. I architected and developed a variety of features leveraging Ruby on Rails on the backend with an Html5/Jquery based front end. The site ran on Heroku and leveraged several AWS components and other cloud-based services. Source control was managed with git via Github. The site featured extensive use of caching infrastructure and background queue-based processing. The search was powered by ElasticSearch and featured field boosting with various text analyzers. Other backend servers include PostgreSql and Redis. I applied lean startup principles to the organization and brought the site to private beta before planned departure. I assisted with product development and prioritization.

Director, Software Engineering *Getty Images*
2007 - April 2012

I reported to the VP of Technology and lead a twelve person team architecting and developing solutions for the Getty Images Sports, News and Entertainment division. I was 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. I was a leader in the technology organization across geographic offices to drive Getty's success in digital media.

I architected a web-based workflow portal using ASP.NET MVC (started with beta, evolved to MVC3) using SOA principles allowing users to easily manage various enterprise systems in a unified, cohesive setting. The project replaced numerous, disconnected third party tools in order to unify Editorial technology and streamline workflow for a wide range of users. The architecture featured 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 was essential.

The application architecture included various n-tier applications developed using Domain Driven Design paradigms, glued together with IoC containers and backed with various unit tests. Service-Orientated applications featured WCF-based web services written with .NET 4.0 for cross-platform integration (ruby and java). Systems featured 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. I was hands on with the team in all areas of the system, from writing stored procedures to css and from initial design to production debugging.

I 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. The system featured dynamic code generation to support extremely fast calculation to route images based on any number of rules within seconds of receipt. It also supported metadata management, image processing, extensive tracking and is designed for elastic scalability.

I worked 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. I drove agile principles in an ever improving process to operate more efficiently.

Software Engineer/Web Applications Architect *MediaVast, Inc.*
2004-2007
Acquired by Getty Images for $200 million in February 2007.

I worked closely with CTO, Software Architect, and other executives in defining and developing overall software strategy, design, and business process modeling for the startup. My focus was on the web stack and ensuring public facing websites are properly built and maintained. The site grew exponentially with a large, varied user base with an ever increasing photo library.

I 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 modeling and database development work including replication and horizontal partitioning.

I was 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.

I was the 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.

I 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. I 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 *My programming blog at http://blog.michaelhamrah.com*
Interests *Photography (http://www.flickr.com), hiking, cooking and yes - programming.*