
SUMMARY

I have spent my career as a polyglot developer building high-performance systems often in distributed environments and have spent the last few years building high-performing teams to do the same.

EXPERIENCE

Engineering Manager – Core Services

9/2016-Present

Ibotta – Denver, CO

- Built a high-performing engineering team responsible for ingesting over 100 million products daily and over 45 terabytes in image data. The data are accessible via Elasticsearch in our mobile app. We used Node, Spark, Scala, AWS Elastic MapReduce, and SQS to decouple the architecture and allow for massive scale. I provided product direction as well as the system architecture.
- Managed the multivariate testing product to grow testing from one or two feature tests a week to hundreds of feature and content tests on the system.
- Designed the second iteration of the multivariate test product based around a feature flag service to allow developers to roll out feature. Once in production the product team can test the feature's impact and rollout the change or revert it without developer work.
- Our team was responsible for breaking down our Rails monolith into microservices for things like authentication, customer information, tracking services, settings service, feature flag service, and real-time retargeting. These services are handling 10s of millions of request each month.
- Worked to define the recruiting efforts to scale the engineering team from 20 people to over 80. Participated in all aspects of interviewing, recruiting, and onboarding candidates and new hires.
- Helped shape the hiring and interview process to ensure high-quality candidates.
- As an individual contributor I built a system using Spark and Scala to load customer segments into DynamoDB. I was able to reduce the time from 20 hours to under 20 minutes.

Principle Software Engineer

3/2015-9/2016

Six Actual Software – Remote

- Developed REST APIs using Java, Spring, and MongoDB for precision agriculture clients.
- Developed high-performance distributed system to process millions of records from various systems into one location using ZooKeeper and Rabbit MQ.
- Extended the open source MITREid Connect server implementation to support using Stormpath as an authentication provider for users.
- Helped the organization improve their Agile development process by introducing better ticket sizing, encouraging more high-level design upfront in tickets, adding retro meetings and stakeholder demos.
- Implemented code reviews to help improve code quality and visibility.

Senior Software Engineer – Development Lead

4/2012-3/2015

Workiva – Centennial, CO

- Worked as the development lead for a small team of developers.
- Improved performance and functionality in Python on the server side using Google App Engine.
- Developed REST web services in Python on Google App Engine to facilitate the HTML5 application development.
- Built REST API to allow file uploads using a JavaScript client and Python/Django backend.
- Built an annotation system to allow for marking up any document with an extensible array of annotation types (e.g. highlights, comments, bookmarks)
- Tuned performance for tasks like comment counting in large documents reducing runtime by an order of magnitude.
- Helped define interview process to improve quality of candidates.
- As one of the original three people in the engineering team I recruited a number of developers to help fill out the Denver office bringing the total over 25.
- Performed interviews of developers and QA candidates.
- Mentored junior developers on my team to help improve code quality and throughput.

Software Developer III**7/2011-4/2012***Jacobs Engineering Group – Denver, CO*

- Developed applications for a variety of clients such as Denver Metro Wastewater, Texas DOT, and Los Angeles World Airports using Microsoft WPF, WCF, SQL Server, NHibernate, and C#.

Senior C#/ASP.NET developer**3/2010-7/2011***GoDaddy.com – Greenwood Village, CO*

- Developed high-availability software on the main GoDaddy.com homepage to facilitate campaign rotation and manipulation by marketing.
- Worked in small groups of developers and QA to develop, test, and release updates daily.
- Implemented Cassandra to handle session data on GoDaddy.com, videos.godaddy.com, and cart.godaddy.com. This reduced lost business due to server cluster changes that would have previously killed a customer's session.
- Implemented multi-currency initiative to allow for multiple currencies for various customers around the world. This resulted in fewer declined credit cards and increased revenue.

Associate Software Developer**8/2006-3/2010***CH2M HILL – Englewood, CO and Remote*

- Developed extensive PL/SQL stored procedures to call invoke web services to update and record geospatial information for DOJ operations around the state of California using Oracle for the California Department of Justice operation planning tool.
- Developed a complete C# and SQL Server web application to replace Excel spreadsheet calibrations used by the Kennecott Utah Copper Corporation.
- Developed a Delta V conversion utility to convert massive FHX configuration files into XML and eventually into a relational database. Using multithreading and caching I was able to reduce the running time from almost 30 minutes to fewer than five on average for large configuration files.
- Architected and implemented a VMware environment for the Wyoming Department of Environmental quality. Designed, procured, implemented the entire system \$400,000 under budget resulting in a 40% savings to the client.

Software Engineer**10/2005 – 8/2006***The Practice Manager Group L.L.C. – Aurora, CO*

- Worked with core development team in Lithuania to implement desired functionality.
- Refactored the user interface to better match the stand-alone version

Programmer/Analyst**9/2001 – 10/2005***U-Haul International – Phoenix, AZ*

- Built the reservations website that handled over a million dollars a day in revenue.
- Developed a C# and SQL middle tier to replace an aging FoxPro database to support all web-based and call center reservation made.
- Developed a multithreaded, Windows-based scanning application in C# for company stores to scan customer IDs, perform OCR operations, and submit the information to a database via the Internet and web services.
- Developed a system and algorithm to validate towing scenarios with U-Haul equipment and customer vehicles resulting in a United States patent (USPTO Number [7,676,494](#)).

EDUCATION

B.S.E., Computer Systems Engineering**Arizona State University - 2001**

Tempe, AZ

Focused on low-level embedded systems

Master Computer Science**Colorado State University - 2011**

Fort Collins, CO

Focused on high-performance parallel computing