

Jason Motylinski

Software Craftsman. Geek.

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SUMMARY

- A strong leader passionate about building and leading great teams
- A full stack software craftsman with over 22 years of software engineering experience.
- Passionate about good development principles such as continuous integration/deployment, SOLID, DRY, YAGNI and Test Driven Development
- Polyglot engineer seeking a challenging, fast paced environment which offers the opportunity to utilize problem solving and leadership skills.

SKILLS

Languages/Frameworks: Python, JavaScript/Node.JS, SOA, Java/Scala, C# 4.0, ASP.NET MVC3/4, jQuery/jQuery UI/jQuery Mobile, PHP, Ruby on Rails, PERL, HTML,, Sass/CSS, T-SQL

Databases: Elasticsearch, MongoDB, Sybase, SQL Server 2005/2008, MySQL 4/5, Oracle 10g/11i

Clouds: Amazon Web Services, Google Cloud Platform

Operating Systems: Linux, Windows Server 2003/2008 R2

PROFESSIONAL EXPERIENCE

Director, Engineering - AI Labs, BlackRock

New York, New York - August 2018 - present

Founding member of the leadership team within AI Labs, responsible for building the Engineering discipline and creating a collaborative and highly creative culture.

Responsibilities include:

- Hiring, leading, and growing a team of cross functional data and software engineers
- Building an open, collaborative, and innovative team culture
- Establishing a cloud-native vision, strategy, and roadmap that allows AI Labs to rapidly deliver machine learning solutions.
- Defining Engineering patterns and best practices for building pipelines, APIs, and web-based applications.
- Managing product squads to develop solutions which enable Data Scientists to be 10x more productive
- Oversee all AWS infrastructure for AI Labs, including data pipelines, backend APIs, and supporting systems.

Software Engineering Manager - Data, Spotify

New York, New York - March 2017 - August 2018

Established data engineering practice within new cross-functional Data Mission. Responsible for ensuring unbiased hiring processes and building a high-quality diverse data engineering team. Served as interim Director of Engineering for Data Mission.

Accomplishments include:

- Established a Major/Minor program to help build T-shaped engineers to reduce pigeonholing people into a single specialization. Program is currently being adopted company-wide.
- Established a fair and unbiased method for interviewing and hiring engineers.
- Partnered with engineers to design architectures which allow data to be managed at scale.
- Mentored and coached engineers to establish effective agile delivery processes.
- Managed the professional growth for 5 - 11 engineers by creating a consistent feedback loop and bi-annual professional development plans.
- Established quarterly objectives and key results for managers within the Data Mission to measure success of leadership-driven initiatives.

Language(s): Python, Java, Scala

Cloud(s): Google Cloud Platform

Head of Data Engineering, Dow Jones Minneapolis, MN - June 2014 - present

Founding member of the Data Science and Engineering team (DS&E). Responsible for partnering with Data Scientists and Product Managers to deliver insights to Dow Jones utilizing a variety of big data tools.

Accomplishments include:

- Built and led rollout of 20+ large-scale data pipelines utilizing a combination of Luigi, Hadoop (EMR), Google BigQuery, Google Cloud Dataflow, and Elasticsearch.
- Delivered multiple C-Suite KPI dashboards utilizing Elasticsearch for analysis and custom Kibana 3 modules for display.
- Partnered with Data Scientists to deliver a Customer Knowledge Engine which provides large scale analysis and modeling of users. The output of the analysis is provided in real time via an API to third parties, specifically advertisers, so they can better target our customers and increase user retention rates.
- Developed a generic real time generic logging service which allows any application to log unstructured events by making a simple HTTP GET request to a tracking API. Solution utilizes the ELK stack.
- Developed a proof-of-concept real time notification system which spans multiple interface types allowing WSJ.com to simultaneously notify a user on the web, in app, and via email.
- Member of the leadership group responsible for defining application, API, quality, and delivery standards for Dow Jones.
- Managed a team of 7 data engineers and multiple parallel product delivery timelines.
- Pioneered the use of Google Cloud Platform and Docker at Dow Jones.

Senior Software Engineer/Technical Lead, Dow Jones Minneapolis, MN - February 2013 - June 2014

Founded and grew an engineering team responsible for creating real time analysis products and recommendation engines for the Wall Street Journal (WSJ.com) and MarketWatch.com. The cloud-based solutions used a combination of Apache Storm, LogStash, and Elasticsearch to process large volumes of data in real time.

Accomplishments include:

- Built a recommendation engine web service which provided personalized article recommendations to users based on their previous reading behavior and, topics. Solution utilized message queuing, Apache Storm, and AWS CloudSearch to provide recommendations. Version 2 replaced AWS CloudSearch with Elasticsearch.
- Built a real time analytics system named News Helm, similar to ChartBeat, for WSJ.com which provides journalists a real time view of user behavior on the website. With the immediate feedback provided by News Helm journalists are able to react quickly to increase traffic to their articles. The solution utilized the ELK stack to provide real time data collection, storage, and reporting.
- Pioneered infrastructure as code for deploying and managing cloud infrastructure in Amazon Web Services
- Grew team from a single engineer to a team of 5

Senior Software Engineer/Technical Lead, Thomson Reuters St. Paul, MN - July 2010 - February 2013

Implemented an MVC-based web application (PUBS) for managing document creation and approval process workflow. PUBS guides sales specialists through the creation of a contract. The contract is used when negotiating sales opportunities with customers. The application is responsible for managing the submission of the contract for various approvals within Thomson Reuters. Upon successful approval the application is responsible for provisioning customer accounts for access to the DataScope Select system.

Accomplishments include:

- Used Autofac and MVC to create a highly composable web application, allowing objects to have a single responsibility and a high level of testability. PUBS has over 85% of code covered by unit tests.
- Implemented ZeroMq to decouple communication between the web application and Windows service. ZeroMq allowed us to easily implement request/response And publish/subscribe messaging patterns.
- Implemented an event store for tracking data and state changes to important domain objects, such as contract and user information. An event store allowed the product owners to understand the state of an entity at any given moment along its timeline.
- Used a combination of CoffeeScript, jQuery, and jQuery-UI to create a browser-based calculator which provides the sales specialists the ability to construct a contract. By pushing the logic to the browser the sales specialists are able to create a contract quicker and easier.
- Implemented Microsoft Data Services and OAuth for integration PUBS data and authentication with external applications. Microsoft Data Services allowed us to quickly expose data with little code scaffolding. OAuth will allow us to centralize authentication and authorization across multiple applications with the DataScope Select technology group.
- Spearheaded the transition to a quicker, more responsive development and release cycle. Using a combination of tools to solve technical hurdles and user stories for collecting requirements we have been able to double the amount of releases done within a given year from 3 to 6. In 2012 we are attempting to increase releases to once a month by working with the business to create a product backlog and sprints.
- Researched and POC'ed PUBS on various cloud offerings and NoSQL databases including AppHarbor, Azure, MongoDB, and Cassandra.

**Senior Software Engineer/ Team Lead, XATA Corporation
Eden Prairie, MN - July 2009 – May 2010**

Designed and implemented a GIS-based sensor observation repository loosely based on the Open GeoSpatial standards for capturing and communicating data from thousands of loosely coupled physical sensor devices.

Accomplishments include:

- Designed and developed a sensor observation repository system comprised of a SQL Server 2008 database, a layered application stack for interfacing with the database, and a RESTful WCF service for integrating with devices and other applications. The sensor system was architected to receive and store millions of sensor observation data points per month.
- Spearheaded the integration of NHibernate as a framework for reducing the amount of code required in the data access layer. Utilized T4 templates to help expedite the creation of code. Business logic also was consolidated using a Service pattern.
- Successfully helped drive adoption of an agile process for developing and delivering solutions to meet the increased release schedules mandated by the sales cycle and market demand.
- Using an agile process, the team was able to deliver a sellable sensor system to the marketplace within 9 months from inception.

**Consultant, Digiineer
Plymouth, MN - October 2007 – July 2009**

Responsible for assisting clients design and implement service-oriented applications in the latest Microsoft .Net technologies. Experience ranged from modifying and extending existing SOA architectures to designing and prototyping next generation systems.

Digital Media Client – 7 Months

Served as the Application Architect for a ambitious project to rewrite and replace aging enterprise ecommerce middle tier components. Responsibilities included designing and implementing services for new components as well as re-architecting the existing e-commerce website into a standard web framework.

Accomplishments include:

- Defined and documented standards and best practices for implementing a service-oriented architecture. Designed and implemented the application architecture for delivering WCF-based services in a common pattern. Defined conventions for contracts used by services and clients.
- Led the refactoring efforts to re-architect a legacy e-commerce website from .Net 1.1 and custom web architecture to using a standard MOSS/Sharepoint web framework. Required decoupling of business and data logic from legacy UI code and refactoring into standard design patterns. The re-architecture also required migrating code into an n-tier application. To ensure functionality was maintained unit testing was used heavily to validate component functionality.
- Designed and implemented a service for creating and redeeming discount coupons. The service was required to interact with external web application and an internal order management system. The service had to maintain a platform-agnostic facade. Consumers ranged from a 3rd party java application to an e-commerce website and a Biztalk orchestration.
- Served as a Tech Lead all assigned projects. Worked with the development team and

management to develop an agile process for delivering results quickly. Adapted the Scrum methodology and blended it with the client's needs to create a collaborative work environment.

Financial Services Client – 9 months

Architected and designed new web services in an existing service-oriented architecture. Challenges included developing WSE-based and WCF-based services to be interoperable with 3rd party applications.

Accomplishments include:

- Refactored a custom service-oriented document repository engine into an enterprise-level scalable system that allowed a single installation to support the storage of millions of documents by multiple business units or clients.
- Designed and implemented multiple service-oriented Windows and web services for third party communications. Used various implementation patterns including WCF, WSE 3.0, and POX (Plain Old XML). Applications allowed the exchange of documents securely over the internet.
- Designed and implemented multiple web applications for accessing the document repository. Applications required the use of AJAX technologies using Microsoft's Web Control Toolkit and jQuery.
- Designed and implemented customized databases outside of the core document repository engine to support specific data related to the client or business unit using the engine. Required the design of semi-normalized tables and stored procedures in SQL Server 2005.

Managed Health Care Client – 6 months

Architected, designed, and led effort to convert a thick-client Windows Forms application to a WPF application utilizing a service-oriented architecture.

Accomplishments include:

- Led effort to re-design existing 2 tier Windows form application into a 3 tier service-oriented architecture. Collaborated with enterprise architects to adhere to existing corporate standards for service interfaces.
- Led development effort of 6 developers to build out prototype framework for next generation architecture. Implemented a simplified Scrum process to increase communication between developers and visibility of progress and issues to management.
- Developed working examples of WCF, WPF, and WF technologies in the prototype. Required integration with an existing Oracle 10g/11i environment.
- Supported existing applications by refactoring trouble areas in code to simplify, isolate, and abstract complex logic.

Lead Software Developer, ShopNBC Eden Prairie, MN --- June 2007 – September 2007

Architect, design, and implement enhancements to the ShopNBC.com e-commerce website. Work with managers and developers to enhance development processes for automation, quality assurance, and speed to market.

Accomplishments include:

- Designed and implemented new Web 2.0 AJAX functionality on the existing program

guide website. Included reverse engineering existing coding patterns and adhering to them.

- Helped re-architect the development process and implement Team Foundation Server. Required a planned migration from Visual Source Safe to TFS, restructuring the release management process and laying the groundwork for automating unit tests.

**Software Architect, MotivAction, LLC
Plymouth, MN - October 2001 – May 2007**

Architect and implement next generation applications essential to the MotivAction business model. Define standards and best practices intended to educate and mentor developers. Design and implement applications to create efficient delivery of client solutions.

Accomplishments include:

- Promotion to Software Architect. Responsibilities include ensuring quality development of enterprise-wide applications and delivering flexible solutions that meet multiple clients' needs.
- Architect of a complex object-oriented framework that addresses business needs and improves the process for delivering applications.
- Defined designed and implemented an agile development process used with internal and outsourced development staff to rapidly develop applications within budget and time line.
- Designed and developed numerous service-oriented architectures to distribute computing power across multiple computers. Implementations include web services, windows services, remoting, and message queue.
- Defined enterprise coding standards and best practices to ensure code integrity.

Specific projects include the following:

- Designed and developed the MotivAction.Framework 3.0. This architecture is an n-tier object-oriented framework that spans functionality from database connectivity to the user interface. The framework technically defines how MotivAction delivers client solutions through a common code interface.
- Architect and developed a modular, XML-based interface that allows client applications to share common functionality and also allows for customization when required.
- Led effort to define standard process for documentation. The effort includes creating technical design templates, code commenting standards, and centralizing best practice techniques using a wiki.

**Web Application Developer, Ciceron Interactive
Minneapolis, MN - May 2000 – October 2001**

Developed custom web-based applications to address specific client business models.

Specific projects include the following:

- Managed, designed, and implemented a web-based application for 4COM Inc, a leading commercial national cable television reseller. The application was built to manage 4COM's various types of customers.
- Developed the Ciceron Shopping Network that allows for quick and easy e-commerce store creation for small to medium vendors.
- Actively sought out and achieved Technical Lead positions on many client development projects.
- Catalyst for Linux development. Main support contact for all Linux-based work and

administration which included administration of a custom mod_perl web-based email system.

- Developed a client-side bug tracking system for easy customer-focused bug reporting.

Senior Content Engineer, Internet Broadcasting Systems Mendota Heights, MN - April 1999 – May 2000

Developed and published template based web sites for syndicating new stories nation-wide.

Specific projects include the following:

- Designed, created, and implemented a templating application that allowed for rapid site creation and implementation. The tool, dubbed 'Templator', was initially created in PERL and was ported to PHP. Its final version was in Cold Fusion. The tool decreased production time from 6 weeks to 3 days.
- Managed a group of 20 HTML programmers. Duties included interviewing new employees, coordinating network-wide site changes, and acting as a resource for standards in coding practices.
- Managed the creation and development of 10 network sites, which included code configuration, management of site resources, and tool configuration.

HTML Programmer, Moore Data Management Systems Minneapolis, MN - June 1998 – April 1999

Developed HTML templates for publishing real estate information from the multiple listing services (MLS).

Specific projects include the following:

- Created and implemented customized SQL HTML templates to display housing information for the real estate industry. The template language included interaction with an in-house SQL engine.
- Worked in a strict VAX environment.

Contract Employment, Broken Industries Minneapolis, MN - 1995 – 2002

Created and developed custom web-based applications for clients. Responsibilities also included networks and hardware.

Specific projects include the following:

- Rocket Sound Records (1998 – 2002) – Created and maintained a web site for the Minneapolis based record label Rock Sound Records. Email broadcast, news site content management, and image management tools were developed for the site.
- TIES Inc. (1997) – Managed and maintained 4 Apple Macintosh and 2 PC labs of computers. Responsibilities included hardware maintenance and software integrity.
- InforMNs (1996) – ISP phone support representative. Other activities included converting Microsoft Word documents for publishing on the web.

EDUCATION

**University of Wisconsin
River Falls, WI - 1996 – 1998**

Credits toward a Management Information Systems Degree