

Eric Wadsworth

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Strengths and Goals

I've been writing back-end Java for the past 12 consecutive years, managing data. I spent about 3 ½ years working with Hadoop and “big data”. I build high quality code, with an emphasis on clarity, using agile methodologies and appropriate TDD. I use Linux and IntelliJ IDEA. I'm extremely organized, an expert communicator, and do not hesitate to take a leadership role when requested. I continuously expand my knowledge and skills. Point me at a problem, and I'll pull the trigger.

A Few Skill Highlights

Java Spring JUnit SQL jOOQ Hadoop Pig Linux

Experience

- ◆ *Jan 2014 to Feb 2016 (2 years)* **Qualtrics** – Senior Software Engineer. Back-end Java development in a SOA (microservices) environment, for a SaaS company. Principal engineer on two large data migration projects, a data encryption feature, and the new back-end data persistence layer. Architected, designed, built, deployed and maintained a highly-available high-use tier-one guaranteed-consistency shard information service cluster that spans six different datacenters, depended upon by multiple other services, and ultimately the entire company, with 100% uptime for forever. Built automated relocation service for moving complex datasets between shards and datacenters. Gave multiple presentations and training to engineering department. Used Java, Spring, REST, MySQL, Postgres, jOOQ, Liquibase, JUnit, RabbitMQ, Docker, Git, Gitlab, Linux, Jenkins, Maven, etc.
- ◆ *Sept 2011 to Dec 2013 (2 ½ years)* **Commission Junction/ValueClick** – Senior Data Warehouse Engineer. Architected and designed significant components of a hadoop-centric data warehouse. Wrote many complex, multi-step map-reduce operations to gather disparate data in various formats from multiple sources and aggregate it for reporting. Evaluated technologies such as Avro and Storm. Wrote reliable automated performance optimization system in Java (ran flawlessly for 18 months plus). Architected, designed, and implemented robust, self-recovering data marshaling system using flume, sqoop, bash, and Java-based map-reduce. Designed high-speed performance reporting back-end system using HBase. Wrote reliable, multi-threaded ETL processes in Java. Repaired and retrofitted portions of legacy Oracle-based data warehouse, resulting in a decrease in time for customers to obtain their reports from tens of minutes to tens of seconds. Designed and built robust, reliable data migration systems.
- ◆ *May 2010 to Aug 2011 (1 ½ years)* **Tynt Multimedia** – Senior Software Engineer. Designed and built many applications to deal with vast amounts of data flowing through multiple Hadoop clusters, using Pig Latin and Java-based map-reduce. Wrote an HBase application layer upon which multiple HBase applications were constructed. Built libraries of hadoop-optimized tools, including a high-speed URL normalizer, a high-speed key phrase matcher, an IP address geo lookup tool, etc. Built a java-based map-reduce application to collect detailed monthly statistics on many hundreds of gigabytes of daily data. Rewrote a complex core component resulting in a 60X performance gain for processing incoming data.
- ◆ *July 2005 to May 2010 (5 years)* **Family History Department, LDS Church** – Software Engineer. Worked on the New FamilySearch project, a world-wide genealogical application.

Used Java, maven, ant, subversion, Jersey, GWT, IntelliJ IDEA, Oracle.

- **Dataflow team:** designed and implemented a system that provided continuous ongoing updates from a large legacy information-processing application to a new system that was replacing it; responsible for the overall architecture of the asynchronous flow of data, including a sophisticated mechanism for handling data that was accepted by the legacy system but was not accepted by the new system.
 - **Domain team:** Worked on a team designing, implementing and testing a major refactor of the domain layer and underlying persistence layer of the very large, complex application, resulting in enormous performance improvements.
 - **Z team:** Worked on a vertical team designing, implementing and testing a new consumable service, with accompanying UI gadget and specification, providing user discussion functionality on application-specified objects.
- ◆ *July 2003 to July 2005 (2 years)* **Joint Interoperability Test Command** – Software Engineer, Team Lead. Worked on the Transportation Global Edit Table, a three-tier Java-based J2EE enterprise tracking system for the accounting of transportation-related expenses for the various branches of the US Department of Defense. User-interface, software design, database design, implementation, deployment, testing, documentation. Worked extensively with Oracle databases, application servers, proxy servers, web servers, and Java clients. Worked on other projects (classified).
 - ◆ *2002 to 2003 (1 year)* **DMetrix, Inc.** – Software Engineer. Designed and implemented sophisticated image viewing Windows application in C++, developing high-speed network-optimized sampling algorithms to allow for zooming and panning of multi-gigabyte JPEG images stored on a remote server. Designed and implemented PHP applications for internal use.
 - ◆ *1999 to 2001 (2 ½ years)* **Conceptual Systems & Software** – Software Engineer, Simulation Engineer, System Administrator. Worked in a programming team designing, implementing, testing, debugging, and maintaining multi-platform object-oriented C++ control software, with extensive use of network sockets and multithreading. Designed and implemented robust low-level API in C with error handling and socket communications. Completed a prototype of a complex control system in two weeks that was scheduled to take six months by a team of engineers, resulting in a dramatic timeline shift for a multi-billion dollar DoD program. Developed virtual prototyping simulations for multiple projects. Wrote custom software in Java. Administered computer networks, webservers, DNS, CGI, back-end e-commerce software, backup system. Automated tasks using Perl.
 - ◆ *1997 to 1999 (1 ½ years)* **TBRs Technology** – CAD Engineer. Designed many mechanical systems using 3D CAD. Handled all the IT needs of the company.
 - ◆ *1996 to 1997* **Brigham Young University, Computer Science Department, Performance Evaluation Laboratory** – Programmer, Research Assistant, Teacher Assistant (CS 380: Computer Architecture). Worked on analyzing and improving low-level performance.
 - ◆ *1995 to 1996* **INFOBUSINESS, Inc:** Programmer. Developed multimedia software.
 - ◆ *1993 to 1995* **MultiLing International, Inc.** – MIS Director, Network Administrator, IBM Support Technician, IBM Training Administrator. Conducted training sessions on use of IBM TranslationManager/2 software for major organizations across the United States. Provided international telephone support for IBM TM/2 product line.

Education

Brigham Young University - 1992-1997: BS in **Computer Science**, minor in Psychology