

## Goals

*A position where I can contribute directly to the software development processes (architectural design and hands on coding) while at the same time mentoring, guiding junior team members in coding and best practices and supervising validating decisions of senior team members.*

## Leadership:

*Experienced with managing multiple teams and projects towards common architectural and organizational goals. Amazon certified SCRUM Master and agile proponent. Responsible for team performance, project completion, requirements analysis, design, defect impact evaluation, deliverable, and time-frame negotiation. Successfully managed to balance user requirements against scope creep and project timeline.*

## Experience

- *Team/Project Management: Worked directly with CTO to define organizational goals, defined organizational architectural goals*
- *SCRUM Master: Full application life cycle, 'OO' Design/Development*
- *Big Data: Processing Huge volumes of Data (Petabytes), use of Map Reduce and SOA*
- *Design Patterns: Reusable components design, parallel optimizing techniques*
- *Build Framework (Build/Test/Report): Distributed Service Based Application*
- *Experience with highly parallel systems and designs.*

## Development Languages:

*• C++ (20 years) • C (24 years) • Perl (6 years) • HTML/CSS/Javascript (5 years) • PHP (4 years) • SQL (10 years) • UNIX shells (24 years)*

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## Experience

### Director Of Engineering – Moz

c++, soa, services, bigdata, rest, java, hadoop

July 2011 – Current

#### Apr 2014: Director of Engineering

A recent look at the index and this year.

Main focus is Big Data and the technology we use. Maintaining backwards compatibility and focusing on expanding index size and decreasing maintenance burden. Major new initiative is the development of continuously updating web index built on top of Kiji/Hadoop/Hbase cluster.

#### Feb 2013: Manager of Big Data

Took on architectural/lead/management role of all "Big Data" operations. Responsible of aligning "Big Data" architectural requirements with new product requirements and coordinating Big Data with Inbound marketing and Analytic teams.

#### Jul 2012: Manager Scheduler/Crawler Teams

Took on management of Scheduler and Crawler team. Led the architectural re-design of the scheduler system to increase schedule size/maintain politeness/provide feedback and add the ability to tune how the scheduler works dynamically.

Doubled the size of the schedule without increasing crawl time. The original schedule was constrained by politeness and parallelism dropped measurably during crawl, while the new schedule maintaining a diversity of usable domains to maintain parallelism.

#### Jul 2011: Lead Crawler system

Brought in to stabilize and improve crawler. Added monitoring and metrics generation to identify where the actual issues were and measure changes as code was fixed. Increased crawl velocity from 200 million to 800 million URLs per day while maintaining error rate and politeness.

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**Senior Lead SDE – Microsoft**  
c++, soa, services, mobile, mobile-device

March 2009 – June 2011

**Mobile Coupon Service:**

Designed and built original prototyping for the project; subsequently managed 4 developers and organized the larger team including 3 testers and 4 pms during implementation. Instrumental in cross team integration planning and deployment with the other service's team leads.

The project was originally designed for geolocation in 3 data-centers over 2 continents and integrated with several existing major services: Generic Ad-Server, Mobile Ad Provider, Coupon Creation Portal for Advertiser.

The coupon service consisted of two new services: Service1 which performs user coupon management and tracked/throttled coupon issue on a per user basis; Service2 which is a coupon minting services that provided uniquely identifiable (and traceable) coupon images on the fly.

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**SDE III – Amazon.com**  
c++, java, perl, db, soa, services

March 2007 – March 2009

**Data Collection Layer:**

Senior developer of the team: Defined a high level API for guaranteeing the complete delivery of all 'accounting relevant information' from multiple client services. The API was designed to replace the previous tightly coupled CRON/Perl system and evenly distribute load, reducing peak Data Base load by 90%.

**Accounting Domain Language:**

In conjunction with another senior developer, defined a domain specific language for accounting. The goal was to provide an easy to read/use declarative language for mapping business events to the 'Chart of Accounts'. A prototype service that utilizes the language has demonstrated that it was as efficient as the current code, and additionally provides a GUI interface for viewing/modifying and testing new constructs.

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**Principle Software Engineer – Symantic**  
c++, cross-platform

December 2001 – March 2007

**Licensing Agent:**

Involved from project conception; managed requirements gathering, design and organization of resources during implementation. The Licensing Agent is a CORBA service implemented in C++ that became a standard component for all Symantec products.

**System Infrastructure:**

Managed the simultaneous delivery of 5 "Open Source" products across 25 platform configurations. Organized the delivery schedule of internal releases to product development teams, prioritized and tracked the closure of known defects.

**Build System:**

Implemented the initial upgrade to provide a consistent reproducible build of "System Infrastructure" doubling the support platforms and reducing build time by 50%. Negotiated the redeployment of resources from all build-system 'stake holders', making this a permanent project.

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**Compiler Engineer – BOPS**  
c, c++

January 1998 – November 2001

Worked as a team member building a standards compliant C compiler using C++ for a unique SOC.

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## Education

**PhD Computer Science ABD – Manchester University**  
distributed-memory, multiprocessor-architectu, compiler, sisal, c

1992 – 1994

Ported the SISAL compiler to the 64 processor, distributed memory KSR-1. Added compile time analysis of the interaction of hardware and software memory management for multi-threaded processes in order to provide timely pre-movement of data between processors at run time to avoid processor stalls.

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**MSc Computer Science – Manchester University**  
dataflow, compilers, parallel-processing, sisal, c

1990 – 1992

Modified the code generation phase of the SISAL compiler to produce efficient code for multidimensional array access. Extended the code generation phase to handle higher order functions and partial function closures.

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**BSc Computer Science – Manchester University**  
c, compilers, parallel-processing

1987 – 1990

1st Class Honors (American equivalent: summa cum laude)

<http://en.wikipedia.org/wiki/Britishundergraduatedegreeclassification>  
<http://en.wikipedia.org/wiki/Latinhonors>