

Summary

Broadly experienced, hands-on Developer and Architect with a strong track record over the full product life-cycle, from inception and design through implementation, deployment and operations. Highly proficient in Agile development, rapid prototyping, deployment cloud infrastructure, distributed and service based systems, monitoring, and performance tuning. Develops and maintains deep understanding of leading edge technologies, particularly within the Open-Source ecosystem.

Skills

Languages: Java, Python, C, Perl

Databases: Oracle, PostgreSQL, MySQL, Informix, Sybase, SQLite

Tools: Emacs, Eclipse, Ant, Maven, CVS, SVN, Git

Messaging: MQSeries, SonicMQ, RabbitMQ, Qpid, ActiveMQ, SQS

Web Services: SOAP, XML-RCP, REST

Frameworks: Spring, Django

Cloud: EC2, Hadoop

Operating Systems: Linux, BSD, Solaris, HP/UX, AIX, most major Unixes

Professional Experience

Perigee Software, Inc.

Owner, President, and Principal Consultant

July 2012 to Present

Provided software consulting and custom development for third parties. Clients include:

Vertex

Independent Consultant

July 2012 to Jan 2013

- Implemented prototype internal data management tool in support of their Vertex Enterprise product line. Front end was implemented in Flex with the backend using [Spring](#), [Spring-WS](#), and [MyBatis](#).

Navteq

Lead Architect

July 2011 to March 2012

- Along with other members of the Architecture team, designed and built [Dempsy](#), an actor-like scalable distributed event processing framework, recently open-sourced by Nokia/Navteq.
- Implemented distributed monitoring subsystem for Dempsy using [Yammer Metrics](#) and [Graphite](#).
- Reimplemented core Navteq traffic processing applications on top of the Dempsy framework.

GSI Commerce

Principal Architect

2008 to 2011

- Helped set the partner integration services direction, including API design of RESTful interfaces for client access to internal service, individual services using [Spring](#) and [Mule](#) and deploying an authentication and access control framework using [Sonia](#) ServiceNet along with a custom [LDAP](#) schema.
- Reworked Search internals to add support for multiple search servers, including [Solr](#), partially in support of internationalization efforts.

- Led design and development of service oriented architecture, centered on [Mule ESB](#) and [SonicMQ](#) for next generation e-commerce platform, integrating both COTS components such as [Sterling Order Management](#), [Enfinity](#), [Vertex](#), and [ISD](#) as well as in house developed components.

Invite Media, now a Google company

Senior Software Engineer

Feb to Sep 2008

- Participated in the design and implementation of a demand side ad platform, using an array of technologies including Java, Python, [Hadoop](#), [RabbitMQ](#), and [memcached](#) and deploying to [Amazon EC2](#).
- Designed and implemented cluster monitoring and management system, using [Zenos](#).
- Built analytics data layer using [SQLAlchemy](#) and [PostgreSQL](#).
- Performed scale-out testing and optimization of high speed event based data capture subsystem, responsible for capturing ad impressions and tracking pixels.

GSI Commerce

Principal Software Engineer and Architect

2002 to 2008

- Maintained and enhanced e-commerce platform for a major e-commerce outsource provider.
- Responsible for architectural governance, design, and leadership for a wide range of projects with emphasis on those involving the shopping cart, third party integrations, internal inter-system integrations, security, scalability, and internal tools suites.
- Provided technical assistance and guidance to the business, including technical direction, project cost estimation, and evaluation of third party technologies.
- Worked with launch teams and partners to help define solutions for new partners unique needs, while folding them into a unified underlying platform.
- Led several performance and scaling related projects including distributed caching, memory reduction, and Q4 performance profiling.
- Led, designed, and/or implemented a range of third party payment schemes including [Google Checkout](#), various Gift Cards, ACH, PayPal, Bill Me Later, and other similar systems.
- Primary application developer responsible for security, including [PCI](#) compliance for a level 1 service provider. This effort included integration with [FIPS-140](#) hardware security devices.
- Evaluated and led the implementation of new technology initiatives, including new platforms, application servers, and application frameworks.
- Responsible for a number of internationalization project from data encoding schemes to selecting European payment providers.

Trintech

Senior Software Developer

2000 to 2002

- Built and maintained various banking and e-commerce applications, in particular *eIssuer*, an electronic wallet.
- Implemented extensions to *eIssuer* to support payment via *Secure Electronic Transaction (SET)*, a public key infrastructure (PKI) for credit card transactions.
- Application architect and web-tier development lead for the *eIssuer* product. Researched new features and technologies. Worked closely with Product Marketing and Management in establishing product direction and providing technical expertise. Prototyped enhancements using a range of technologies including Servlets, JSP, EJB, RMI, and XML.

- Major areas of responsibility included: portability across a range of J2EE platforms including Tomcat, JRun, WebSphere, Weblogic, and iPlanet, cardholder data security including design and implementation of schemes for encryption of persistent data and key management, and internationalization (I18N) of a product sold in a variety of non-western locales, including CJK support.

HealthAxis

Senior Developer

1999 to 2000

- Participated in re-architecting an website, that allowed users to shop and apply for individual health insurance plans, from a proprietary solution to a web application based on Servlets and JSPs.
- Designed and implemented a data driven form processing package used for validating, persisting, and transforming data on on complex forms, such as insurance applications.

Platinum Technology (now Computer Associates)

Senior Product Developer

1995 to 1999

- Maintained and extended the *Enterprise Performance Management (EPM)* product suite, which was a performance monitoring application for Unix and NT servers, RDBMS servers, networks and applications.
- Extended the EPM core architecture, including re-engineering to allow the *ad hoc* loading of data collection routines, thus providing for easier addition of new monitors better modularity and independent testing of components.
- Ported EPM to new platforms, eventually supporting 27 Unix variations.
- Supported and maintained EPM source base, serving as primary resource for issues involving portability, linking, builds, shared libraries, interprocess communication, networking, and performance tuning.
- Built and maintained a reusable library of shared components which originated in EPM and were used by other products as part of the POEMS architecture to provide system independent abstractions of common OS services.
- Designed and implemented, in Perl, a distributed auto-build system that built and tested EPM across all supported platforms daily and reported any failures to preserve portability and to support continuous integration among several distributed development teams.

Feith Systems and Software

Senior Software Engineer

1989 to 1995

- Responsible for database design and application interactions for *Feith Document Database*, a document imaging system, which supported multiple versions of multiple RDBMS including Oracle, Informix, and Sybase.
- Wrote a series of test and support utilities for *EasyJuke*, a robotic disk management storage solution, in TCL/TK that used TCL extensions written in C.
- Helped port and certify AT&T and NCR ports of *Network for Unix*, a Novel licensed Unix reimplemention of Netware.

Step-Saver Data Systems

Support Analyst

1987 to 1989

- Maintained modules for paper and electronic insurance claim submission to Medicare, Blue Shield and Medicaid a number of states.
- Integrated various third party hardware and software products into Step-Saver's turnkey medial billing systems.

Education

Villanova University Master of Science in Computer Science. Independent study project *Design and Implementation of a Tuple-Space Server for Java*.

University of Pennsylvania Bachelor of Arts in Astronomy and Astrophysics.

Professional

Member [Usenix](#), [ACM](#), and [the IEEE Computer Society](#). Active in [Philadelphia Area Java Users' Group](#), [Philadelphia Area Scala Enthusiasts](#), and [Conshohocken Ruby User Group](#).