

Andrew B. Sudell
<http://www.drewsudell.org/contact-info.html>

Summary

Experienced architect and development lead with strong background in Java, Unix/Linux, C, and Python. Strong distributed systems experience including networking (Sockets, TLI), distributed objects (CORBA, RMI, EJB), middleware ([SmartSockets](#), [MQSeries](#), [ActiveMQ](#), [RabbitMQ](#), [SQS](#)), RDBMSs (Oracle, PostgreSQL, ...), DSMs ([memcached](#), [Coherence](#)), and Services ([SOAP](#), [XML-RPC](#), [REST](#)). Has a strong track record of taking leadership roles over the full product life cycle, from requirements gathering and design, thorough construction and deployment. Has a proven history of working with senior management, operations, and business users to define requirements and set product direction. Areas of interest include agile methodologies, system performance tuning, distributed systems, software extensibility, internationalization, and cryptography.

Employment

[GSI Commerce](#), Principal Software Engineer and Architect, 2008-Present

Worked with Product Management and Senior Management, to set technical direction on re-platforming efforts. In turn, lead a number of those efforts including:

- 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 [Sonos](#) 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.
- Lead evaluation of third party CMS products.
- Developed the architecture for integration layers around a new Order Management System.

[Invite Media](#), Senior Software Engineer, Feb - Dec 2008

Built a demand-side platform for online advertising, recently [acquired by Google](#).

- Participated in the design and implementation of the 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, 2002-2008

Maintained and enhanced e-commerce platform used by a provider of outsourced online stores for major retail firms, such as [Toys"R"Us](#), [Radio Shack](#), and [Ralph Lauren](#).

- 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.
- Lead several performance and scaling related projects including distributed caching, memory reduction, and Q4 performance profiling.
- Lead, 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.
- Responsible for evaluating and leading 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, 2000-2002

Worked on a variety of banking and e-commerce applications, primarily *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, 1999-2000

Extended and enhanced e-commerce site, since sold to [Digital Insurance](#), selling a range of third party insurance products.

- Participated in re-architecting the site 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, 1995-1999

Worked on the *Enterprise Performance Management (EPM)* product suite, as a member of the kernel team. EPM is a performance monitoring application that gathers data from servers (Unix and NT), networks, applications, and RDBMS engines in order to graph trends, detect anomalies, and perform notifications and corrective actions. Also worked closely with the *POEMS* project, a systems management framework within which EPM integrated with other Platinum products.

- Ported EPM architecture to over two dozen Unix platforms, including SunOS, Solaris, AIX, and HP-UX, as well as Windows NT.
- 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.
- 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, 1989-1995

Major projects were *Feith Document Database (FDD)* and *Netware for Unix*. FDD is a document imaging system build around MS-Windows clients and Unix Servers, using commercial RDBMSs and a locally written Optical Disk Library Manager (EasyJuke). *Netware for Unix* is a source code product from Novell, which Feith OEMed on the AT&T and NCR platforms.

- Trouble shot and tuned for performance the FDD client's SQL interaction with database servers. Supported various RDBMSs including multiple versions of Oracle, Informix, and Sybase,
- Wrote a series of test and support utilities for the EasyJuke Server in TCL/TK that used TCL extensions written in C to wrap the EasyJuke client API.
- Wrote platform specific code for Netware for Unix and fixed deviations found by a Novell provided series of application, API, and network level certification test suites.
- Wrote custom applications as part of systems integration efforts around FDD in C, ESQL/C, Informix-4GL, and Informix-SQL.

Step-Saver Data Systems, Support Analyst 1987-1989

Step-Saver provided Office Automation and Billing systems to the Medical and Legal professions. Primary responsibilities included supporting and enhancing Unix based Medical systems derived from a 3rd party OEMed source base.

- Maintained an extensive and rapidly changing body of code for paper and electronic insurance claim submittal to Medicare, Blue Shield and Medicaid in 7 states.
- Integrated and certified various third party hardware and software products.

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](#).