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SUMMARY

I am a strong applications and systems developer and architect. I am able to bring a project from inception through release, working effectively with all involved parties. I have worked for small and large companies and startup and established companies. I have used planned and agile development methods both formally and informally. I have worked on projects using one, two and three tier standards-based architectures and projects using ad-hoc peer-to-peer architectures. I am as comfortable using scripting languages (Ruby, Javascript, Perl, Tcl) as type-safe, compiled languages (Java, C, C++) in a variety of development environments both IDE based (Eclipse, NetBeans, Komodo, VisualStudio) or command line based (Linux, Solaris, Microsoft Windows, Macintosh OS X, Git, CVS, Perforce, ClearCase, make, ant, shell). I am interested in the user's experience of the tool and so have been involved in information architecture, user interface design, documentation, and training programs.

EMPLOYMENT

Andrew Gilmartin & Associates, Peace Dale, RI, October 2007 – Present.

Sole-proprietorship. I do contract development, project management and coordinate project partners. During this period, work has been on Oxford University Press's Oxford Scholarship Online (www.oxfordscholarship.com), Crossref's SIGG (at crossref.org), Social Venture Partners of Rhode Island (svpri.org), and other web sites.

Oxford Scholarship Online is a collection of over 2500 Oxford University Press's monographs. My work has primarily been in building and enhancing the site's full text search and query-based navigation. Development tools include Apache's Lucene, Java, Perl, and document-centric XML.

SIGG is a full text index and search interface to Crossref's millions of journal article and conference proceeding citations. SIGG is composed of a continuously updated full text index, a RESTful search and retrieval interface, and user interfaces incorporated into the Wordpress and MovableType blog authoring screens. Development tools included Apache's Lucene, Java, PHP, Perl and data-centric XML.

SVPRI is a non-profit working to help other non-profits find alternative sources of funding besides grants and charitable giving. SVPRI needed a new web site and I volunteered to do the project management.

WaveSyndicate, Providence, RI October 2008 – January 2009.

Member of the Technical Staff. WaveSyndicate is an early stage startup developing tools for optimizing online advertising buying (initially) around online video. The tools include a web application, web spidering, and work queues. Deployment uses Amazon.com's EC2 virtual servers. Development tools included the Rails stack (Ruby, Rails, Javascript, CSS, HTML), git for configuration management, and Capistrano for deployment. Most of my work involved using Rails and dynamic HTML to build user interface elements and supporting backend services.

Tazz Networks, Providence, RI, September 2005 – September 2007.

Principal Software Engineer. Tazz Networks provided customized policy control software for tier one telecommunication companies. Tazz's software enabled the dynamic definition and deployment of policies that enacted quality of service characteristics for subscribers' data, voice, or video IP sessions based on their subscriptions and network hardware capabilities and topology. Development was split between engineering staff in the US and professional service staff in the UK. Engineering developed the architectural framework and its implementation and professional services developed the actual customer solution using the framework.

Maintained and enhanced the Visual Design Studio product. This is a Java and Swing based graphical user interface for editing services and configuring the use of the services across a distributed set of hosts. Services are defined using a proprietary, highly parallel, data flow language with a graphical outer shell and an XML inner shell.

Technical Lead of the Narragansett project. This project defined a new framework for building plug-able components and migrated and enhanced existing facilities including capacity admission control to the new framework. Primarily responsible for the API and provisioning interface and overall data model implemented by others. My implementation was limited to components using Tazz's data flow language and SQL.

Technical Lead of Eclipse based Visual Design Studio replacement project. Development on this project was outsourced to ArrAy, Inc. Worked with ArrAy's US contact regards planning, user interface design, and technical support.

After Narragansett my role was architecture, user interface design, and project consulting.

Development tools were Java, Perl, Tcl, Bourne shell, C++ (maintenance only), Eclipse, NetBeans, Perforce SCM, Perforce Jam (maintenance only), PostgreSQL, SOLID, and Tazz Visual Design Studio on Microsoft Windows and Sun Solaris.

Ingenta, Providence, RI, January 2001 – August 2005.

US Engineering Team Lead. Implemented a full text search toolkit using Apache's Lucene. The toolkit enables building indexes from XML encoded documents, querying the indexes via Boolean and Google expressions and the query API, and rewriting of queries to automatically broaden, narrow, or skew results. The toolkit has been used in www.oxfordscholarship.com, www.accessmedince.com, and three more sites in development.

Principal engineer on Ingenta's information commerce product. The core system is an access control system using networks of person and group and products connected by licenses that specify access. The ICS is a modest J2EE application running under JBoss.

Lead a distributed engineering team building the "Clownbike" web portal development platform for Ingenta development staff to create branded journal publisher sites. A site's primary content is the full text of journals (PDF and HTML) along with discussion boards, news, events, jobs and other community features. And administered from the web. Clownbike is implemented in Java as servlets under Jakarta's Tomcat using JSTL (JSP) for the HTML generation. Relational data is kept in Postgresql using a custom built object-to-relational mapping tool. Clownbike is available at clownbike.sourceforge.net.

Implemented a project tracking and reporting system to replace the existing Journyx time tracking system. The system was implemented on the Clownbike platform.

Trained and mentored engineering and development staff in light software development methods and the tools used by Ingenta to build science, technology, and medical reference works and journal web sites.

Senior Software Engineer. Lead the design and implemented an access control toolkit to replace the four existing systems used within the company. A toolkit that enforced a common access control model was preferred over a single, all encompassing program. The design team was composed of US and UK staff with meetings in the US and the UK. The prototype was implemented in Perl.

Designed and implemented a web site usage-reporting system for use by customers and their resellers. The site is subscribed to and so the usage reports included demographic information about the subscriber in addition to typical usage pattern reporting.

Moved all web site full text indexing and searching to use a common infrastructure built on Verity's Information Server. Infrastructure implemented using Verity's Information Service, Verity's SEARCHScript, Perl, and make files.

Aided in the transition to Ingenta of Cadmus's web customer sites and associated software and data from Baltimore, MD facility to Ingenta's Providence and Boston facilities. The principal task was disentangling a fragile and largely undocumented set of system and software dependencies that built and maintained the sites. Elements included

IRIX, Solaris, and Linux operating systems, Sybase databases, full text content in XML, SGML, and PDF, scripts written in bash, sh, csh, ksh, awk, Perl 4 and Perl 5, and system and script configuration files using all manner of syntax.

Mesa Systems Guild, Warwick, RI. August 1998 – January 2001.

Senior Software Engineer. One of three engineers responsible for redesigning and merging the functionality of Mesa's flagship products — Mesa/Vista and Mesa/VistaDB — into a replacement product.

Mesa/Vista is a project management and product development web portal that integrates third-party "engineered product" and case tools into a distributed collaboration framework which provides risk analysis, action item tracking, group discussions, filing services (with version control), and metrics. Mesa/Vista is implemented using Perl, C, and Java on Windows NT, Solaris, HP-UX, Linux and with Netscape Enterprise Server, Apache, and IIS.

Mesa/VistaDB is a web application that enables non-SQL programmers to create a web interface to a relational database. Mesa/VistaDB is a Java servlet with an embedded Tcl interpreter. Primary target databases were Oracle 7 and 8, and Microsoft Access. Technical liaison to OEM partners and to larger customers.

GTECH. West Greenwich, RI. May 1998 – August 1998.

Contractor. Senior engineer in a small team designing and implementing a monitoring and automatic problem resolution system for GTECH's gaming infrastructure. The system consists of Swing based clients to a Java backend that processed data from multiple Java and C++ data feeds. The communication infrastructure uses Weblogic's Tengah (an early J2EE-like container) and RMI.

Geac. Westboro, MA. December 1997 – May 1998.

Senior Software Engineer. Co-authored a technical architecture for a three-tier distributed (CORBA) application. The architecture integrated component-orientated development, Geac's existing SmartStream application, and PowerBuilder and Java frontends. Analyzed billing aspect of an order management application. Used Rational's Objectory iterative development process with the concomitant use-cases for requirements gathering and UML notation for use-case, class, and sequence diagramming. Used Paradigm Plus to record these artifacts.

Dynamic Diagrams. Providence, RI. August 1996 – November 1997.

Primary engineer for MAPA, a system that produces site maps for very large web sites. Designed and implemented a general-purpose GUI framework for presenting, animating, and interacting with isometric diagrams in Java. Designed and implemented a fast parallel web walker using Perl. Designed and implemented an interactive editor for

MAPA's SQL repository using in HTML, Apache, MSQL, and Tcl. Reengineered much of the original Tcl-based backend and support tools.

Dynamic Diagrams is a graphic design and information architecture studio concentrating on the electronic publication of information. Non-software engineering work at Dynamic Diagrams included intranet and internet architectural consulting, and the establishment of the MAPA service hosted at BBN Planet.

Cayenne Software. Providence, RI. April 1996 – June 1996.

Contractor. Completed PowerBuilder and CORBA IDL code generators for Cayenne's ObjectTeam for OMT CASE tool.

Lotus Development Corp. Cambridge, MA. September 1995 – March 1996.

Senior Software Engineer. Enhanced and ported NotesSQL, an ODBC driver for Lotus Notes, from Window 3.1 to Windows NT (Win32) and Unix.

Designed and implemented Lotus Notes applications for project management.

Cadre Technologies Inc. Providence, RI. February 1994 – August 1995.

Senior Software Engineer I. Designed and implemented a version controlled, persistent storage framework in C++ using Visual C++ and ObjectDesign's ObjectStore ODBMS. The framework was used in a collaborative CASE tool supporting large workgroups with members working with any mixture of current and past design models and portions of models.

Primary engineer porting Teamwork 6.0 from Unix to OS/2. Teamwork is a multi-user, clientserver CASE tool. It consists of over 1.4 million lines of C and C++ code that build over 800 deliverables. Designed and implemented a new OS/2 specific communication protocol between Teamwork's frontend and backends. The implementation was multi-threaded but copied the existing C call interface and so required no code changes to the existing clients and servers. Supervised the porting of third-party license manager to OS/2.

Enhanced the Teamwork build and release environment to support single-source building for several Unix platforms, OS/2, and Windows NT. Enhancements included removing subtle Unix assumptions in existing environment and when necessary constructing functionally equivalent versions of Unix tools for the non-Unix platforms.

Computing & Information Services, Brown University. Providence, RI. 1987 – 1994.

Senior Consultant/Analyst. Designed and implemented a Gopher client for Macintosh using C++ and the THINK Class Library. The interface was notable in that it emphasized persistent workspaces and integration with the Finder. Designed and implemented a

Gopher server in C for Ultrix. The design goal was to support long-lived references to the repository's documents and decentralized authorship, editorial control, and system administration. Designed and implemented Gopher and HTTP gateways to various textual repositories, e.g. NNTP, WAIS, and CSO name server.

User Services Specialist. Technical support for Macintosh applications for both academic and administrative users. Designed and taught training classes about using the Macintosh and how to more effectively manage bibliographic, dissertation, research data and analysis, and other forms of structured and semi-structured information.

Dash Financial Sciences. Providence, RI. 1985 – 1987.

Programmer. Implemented a bank teller management demonstration for proposed integrated set of financial institutional management applications. Improved the user-interface and performance of existing products.

EDUCATION

B.S. in Computer Science from the University of Rhode Island, 1989.