

David Mannies

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OBJECTIVE

Application Architect, Technical Lead or Principal Developer position developing RIA or client-server applications using object-oriented methodologies.

EDUCATION

Rose-Hulman Institute of Technology, Terre Haute, IN

BS Electrical Engineering, 1988

QUALIFICATIONS

- Twenty years of industry experience in software engineering.
- Seventeen years of full life cycle object-oriented development including requirements gathering, use cases, analysis, design, prototyping, construction, testing, production release, user manuals, support and version upgrades.
- Sixteen years of industry experience using C#/C++/Java and OOA/OOD methodologies developing system architectures and reusable class libraries.
- Fourteen years of industry experience developing user interfaces.
- Fourteen years developing client-server systems including extensive development experience in each specific area of client, middleware and server.
- Fourteen years developing multitasking and multithreaded applications.
- Twelve years of industry experience developing Microsoft Windows applications.
- Ten years developing RIAs with .Net, C++, Flex, LAMP, AJAX and AJAX like remote scripting.
- Technical skills and knowledge:

Software Engineering: object-oriented analysis and design, application architecture, system architecture, two-tier, three-tier, n-tier client-server and RIA, software specification, user interface design, reusable class libraries and frameworks

Methodologies: OOA/OOD using design patterns, Agile, SCRUM, Booch, UML

Tools: Microsoft Visual Studio, Flex Builder 3 / Eclipse, Xcode, Subversion, Firebug, ANT, Doxygen, VMware, JUnit, Microsoft Visual SourceSafe, CVS, make, lexx, yacc, Microsoft Office, Rational Rose

Operating Systems: Microsoft Windows, Mac OS X, Ubuntu Linux

Languages / Technologies / Frameworks: C#, C++, C, Objective C, Cocoa, .NET, WPF, WCF, XAML, XBAP, Silverlight, XML, XSL, XSLT, XPath, MSXML, libxml2, TinyXML, JavaScript, ActionScript 3.0, Flex 3, AIR, E4X, XHTML, DHTML, AJAX, Remote Scripting, Prototype/Scriptaculous, Ext, YUI, jQuery, Dojo, DOM, CSS, HTML, ASP.Net, ASP, RDF, DTD, SOAP, XML-RPC, RSS, COM, WTL, ATL, ADO, Java, J2EE, JACE, Verity Script, CGI, ISAPI, NSAPI

Databases: Microsoft SQL Server, Oracle, MySQL

Internet Servers: Microsoft IIS, Apache, Tomcat, Jabber XCP, Openfire, ejabberd, Oracle Application Server, Websphere, Verity Information Server, Verity CD-Web Publisher

SAMPLE OF PROJECTS

- Custom C++ library that implements client XMPP protocols for *EA Online / Rupture.com*.
- WYSIWYG AJAX web application to create calendars, photo books and greetings cards using personal photos for *Yahoo! Photos, AOL Pictures, Lifetouch, myCapture, Target* and *JCPenney*.
- Prototype Adobe AIR WYSIWYG card configurator for *ezprints.com*.
- **Highlight Screening** application for *ESPN* to add meta data to video and to create highlight packages of sporting events.
- AJAX web application for the production and delivery of audio and video content for 3G enabled cell phones for *Hutchison 3G*.
- Complete rewrite of the client front end to *Comperio*, a CDROM and web based financial research and reference system, for *PricewaterhouseCoopers*. My front end for *Comperio*, an AJAX like web application using remote scripting, was in service with only minor updates from May, 2000 to July, 2008.
- A guest assistance browser based kiosk for locating products and viewing the weekly newspaper circular for *Target*.
- The market data areas of *www.nyse.com*, the web site of the *New York Stock Exchange*, for *IBM*.
- Call center application for the automated workflow processing of customer contacts for *IBM*.
- Programmable workflow process engine for web servers for *Conduit Software*.
- Award winning large volume (>60,000 users) multimedia consumer products, including *A.D.A.M. The Inside Story '97 Edition*, for *Adam Software*.
- WYSIWYG yellow page ad editor for *Bell South*.
- Printer manager for a Point-of-Service [POS] system for *Tokheim*.
- Productivity software for the real time monitoring of printing production systems for *Microtronics*.

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PROFESSIONAL TRAINING

- *Understanding Customer Requirements* two-day workshop presented by **Donald Gause**
- *International Systems Design's Introduction to Windows 3.1 and Windows NT Programming* five-day workshop presented by **Paul Yao**
- *Rational's Object-Oriented Analysis and Design* three-day workshop
- *Rational's Object-Oriented Analysis and Design* on-site training
- *C++ By Design* seminar presented by **Grady Booch** and **Bjarne Stroustrup**
- *OOPSLA-92*
- *Project Management* five-day workshop presented by **Purdue University**

PROFESSIONAL EXPERIENCE

EA Online / Ruture.com, Atlanta, GA; March 2008 to May 2009; Senior C++ and Adobe AIR developer

Senior Developer for the **Rupture Desktop** middleware for connecting Adobe AIR and DirectX clients, communicating using a custom XML protocol over a local host socket connection, to remote servers. Middleware is written in C++, ActionScript 3.0, XML and XSLT using Flex Builder 3.0, Microsoft Visual Studio 2005, ACE Framework and libxml2.

Major Accomplishments:

Multithreaded XMPP library that implements client XMPP protocols written in C++ with 9,000+ lines of code and 10,000+ lines of comments.

Prototype XMPP client written in ActionScript 3.0 and E4X.

ActionScript 3.0 library used by the AIR client developers to connect to the middleware using an XMLSocket. Library is auto generated from C++ Doxygen macro comments of the XML protocol.

AIR Socket Testing Client for testing middleware subsystems via XML protocol and AS3 communications library.

Revelation Partners LLC, Atlanta, GA; July 2006 to July 2008; AJAX Developer for **ezprints, Inc.**

Principal Developer for AJAX web applications used to create products from personal photos. WYSIWYG Web applications were written in DHTML, XML and XSLT using Microsoft Visual Studio 2005 and Firebug and targeted Microsoft Internet Explorer, Mozilla Firefox and Apple Safari. The web applications communicated to web services created using Microsoft .Net for product style options, data store, and product preview imaging.

Major Accomplishments:

Prototype Adobe AIR WYSIWYG card configurator for **ezprints.com**.

A calendar designer for **AOL Pictures** Phase 2.

Product designers for photo books, greeting cards and a single image products like mugs, mouse pads and etc. for **AOL Pictures** Phase 1.

Product designers for 4x8 and 5x7 greeting cards for **Yahoo! Photos**.

Siemens Business Services Media (formerly BBC Technology), Atlanta, GA; January 2002 to November 2005; Application Architect and Senior Developer

Application architect for Microsoft Windows applications and senior developer for J2EE web based AJAX applications. Windows applications were developed using object-oriented development techniques; were written in C++, COM, WTL, DHTML, XML and XSL using Microsoft Visual Studio .NET; and targeted Windows XP. Web based applications were written in Java as JSPs, servlets or as browser applets and were deployed on Oracle Application Server.

Major Accomplishments:

Application architect for a **Highlight Screening** application for **ESPN**. This application is a Win32 application that uses **Quantel QView Lite**, ATL and WTL for UI components; XML and DHTML for local data cache and editing; and COM with JACE or web services for interfacing with JBoss J2EE application server.

Designed and implemented an application framework to interface a Microsoft Windows C++ application using WTL, ATL, COM, XML, and DHTML to a J2EE server. Framework was created per requirements to allow end user changes to data schema and property panels.

Senior developer of a J2EE web based AJAX application for the production and delivery of audio and video content to 3G enabled cell phones for **Hutchison 3G**. Content was ingested using **Anystream** and edited using **Quantel** edit stations. **Artesia's TEAMS** was used for digital asset management using Oracle Application Server.

Designed and implemented Java interface to **Quantel** edit stations. Interface implemented the **Quantel RCP remote control protocol** via a buffered socket.

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PROFESSIONAL EXPERIENCE continued

Thompson Technologies, Inc., Atlanta, GA; February 2001 to July 2001; Technical Lead and Java Developer for **IBM Kiosk National Practice**

Technical lead and Java developer for web based kiosk applications. Applications were developed using object-oriented development techniques; were written in Java, JSP and EJB using Visual J++ and Visual Age for Java, or HTML, DHTML, JavaScript, CSS, XML, and XSL using Visual InterDev; and targeted Internet Explorer and Netscape browsers or Websphere.

Major Accomplishments:

Principal developer of a report generator for kiosk utilization. The report generator, a Java applet this is accessed via HTML and JavaScript, compiles report data from the kiosk application logs and returns the report as a XML document. A XSL template displays the report in Internet Explorer.

Technical lead and principal Java developer of an update to the browser based guest assistance kiosk I had written for **Target** in 1999. The update includes additional logging functionality and a rewrite of the HTML and JavaScript using an improved design pattern to preload HTML pages into the browser. The software was developed as a browser application running from a local drive without a web server. The software runs within Internet Explorer 5 using DHTML with integrated HTML, CSS, Java applets and JavaScript.

Thompson Technologies, Inc., Atlanta, GA; May 1999 to February 2001; Technical Lead and Java Developer for **IBM Interactive Media**

Technical lead and Java developer for web based applications. Applications were developed using object-oriented development techniques; were written in Java using Visual J++, JavaScript, CSS, DHTML, HTML, VBScript, ASP, ISAPI, CGI and Verity Script using Visual InterDev; and targeted Internet Explorer and Netscape browsers.

Major Accomplishments:

Technical lead and principal Java developer for all market data related areas of **www.nyse.com**, a three-tier client-server web site for the **New York Stock Exchange**. Responsibilities were the design and implementation of key browser components using Java, JavaScript, and HTML; extending key server components using C; interfacing with the client and the market data provider; management of HTML developers for browser components and Java and C developers for CGI server components; and general Java, JavaScript and HTML troubleshooting and bug fixing throughout the site.

Designed and implemented four Java applets to display continuously updated stock market data. Using multiple threads, the applets periodically retrieve the latest stock market data from the server and display the stock data either as a stock transaction ticker tape, a stock portfolio in a ticker tape, a stock portfolio in a table list, or as a single stock quote.

Technical lead and principal Java developer of a guest assistance kiosk for **Target**. Kiosk was used in locating products and viewing the weekly newspaper circular. Responsibilities were the complete design and implementation of the kiosk software. The software was developed as a browser application running from a local drive without a web server. The software runs within Internet Explorer 5 using DHTML with integrated HTML, CSS, Java applets and JavaScript.

Designed and implemented a Java applet list control to display product images and text strings in a list. When used to display images, the applet uses an image source organized in a grid array to display a column list. When used to display strings, it can initialize and navigate a string list consisting of thousands of unique strings instantly. The applet uses multiple threads to implement smooth scrolling when navigating the list of items.

Designed and implemented a circular display Java applet for the newspaper weekly advertising circular. The applet uses a normal size image for page navigation and superimposes a two times image when zooming in. This applet also uses multiple threads to implement smooth scrolling when navigating between the circular pages.

Technical lead and DHTML developer of the client front end for **Comperio**, a CDROM and web based financial research and reference system, for **PricewaterhouseCoopers**. **Comperio** is located at **www.pwccomperio.com**. Responsibilities were the complete design and implementation of all browser components using HTML, DHTML, JavaScript, CSS, and Verity Script.

Designed and implemented a DHTML hierarchical tree control to navigate a dynamic document collection with over 20,000 financial and accounting documents. The control retrieves tree node data into a hidden frame and then dynamically updates the view, by creating new layers as necessary, without reloading the page. The control is written in JavaScript for both Internet Explorer and Netscape and accesses the Verity Information Server to retrieve the hierarchical data. The control also pre-loads branch data to improve response time.

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PROFESSIONAL EXPERIENCE continued

IT FORCE, Inc., Atlanta, GA; April 1998 to May 1999; Senior Software Consultant for ***IBM Global Services***

Designed and implemented key components of a three-tier client-server call center application used for automating the workflow process management of customer contacts. All applications were developed using object-oriented development techniques; were written in Java using Visual J++ with Swing; and targeted Microsoft Windows NT or OS/2.

Major Accomplishments:

Implemented extensions to a proprietary script language used to define workflow processes.

Debugged and provided developer support for developing workflow processes.

Designed and implemented a workflow item object manager. The manager provides functions for caching, creating, storing, retrieving, deleting and status updating of workflow items.

Conduit Software, Inc., Norcross, GA; March 1997 to April 1998; Principal Developer

Designed and implemented from initial conception through testing a programmable workflow process engine and web server extensions to implement a three-tier client-server system providing self-service human resource functions using a web browser. All applications were developed using object-oriented development techniques; were written in C++ using Visual C++ 5.0 or Java using Visual J++; and targeted Microsoft Windows NT and UNIX.

Major Accomplishments:

Designed and implemented web server extensions that integrate data from remote sources into dynamic HTML web pages. The extensions parse and process 25 proprietary HTML tags created to communicate with remote processes, bind and process database data or provide effective enhancements to HTML. They also maintain state information required for multi-page workflow processes and operate within Microsoft IIS and Netscape Fasttrack and Enterprise servers.

Designed and implemented a programmable workflow process engine. Workflow processes, created using a separate GUI application as flowcharts and scripts, are compiled into Java packages and linked to HTML pages. The engine uses the Web Server extensions to display the current process state as an HTML page with data retrieved from a database server. The server extensions return user responses that are then used to determine the next state of the process. This repeats until all processes are completed or cancelled.

ViewCall America, Inc., Norcross, GA; October 1996 to February 1997; Principal Developer

Designed and implemented web browsers for TVs and set top boxes and supported industry partners in the deployment of their products. All new applications were developed using object-oriented techniques; were written in C++ using Visual C++ and MFC or Java using Visual J++; and targeted Microsoft Windows 95.

Major Accomplishments:

Implemented visual changes to an existing web browser for set top boxes written in C and targeted Risc OS.

Designed and implemented a fully functional prototype of a web browser using Spyglass class libraries.

Designed and implemented a simple prototype of a web browser using new source code to demonstrate the feasibility of developing a web browser without using 3rd party libraries. This was effectively an HTML 3.2 file viewer.

A.D.A.M. Software, Inc., Atlanta, GA; February 1996 to August 1996; Independent Contractor

Designed and implemented a new application and implemented additional functionality for award winning multimedia educational programs. All applications were developed using object-oriented techniques; were written in C++ using Visual C++ and MFC; and targeted Microsoft Windows 3.1 and Windows 95. All projects accessed the Windows GDI extensively.

Major Accomplishments:

A.D.A.M. The Inside Story '97 Edition (ATIS) was winner of the 1996 ***Software Publishers Association*** *Codie* Award for *Best Education Product for Middle Schools* and *Best Curriculum-Based Education Product*.

Implemented additional functionality for an existing application as part of a 1.0 to 2.0 upgrade. An additional 30% functionality was created for ATIS.

Designed and implemented an application to display and rotate in 3D a heart, skull, or respiratory system using MFC and Apple's QuickTime for ATIS.

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PROFESSIONAL EXPERIENCE continued

Metro Information Services, Atlanta, GA; October 1994 to May 1996; Information Systems Consultant for ***Bell South***

From initial design through final release, designed and implemented key components of a client-server system for Bell South. Three versions with incremental and functional improvements were released. More than 800 users use the applications. All applications were developed using object-oriented techniques; were written in C++ using Borland C++ and OWL; and targeted Microsoft Windows 3.1.

Major Accomplishments:

Designed and implemented a class to parse a complex delimited string into its various tokens using lex and yacc.

Designed and implemented multiple dialogs to display/edit data in a client-server order entry application.

Designed and implemented a WYSIWYG ad editor for yellow pages ads. This is a key component of a client-server application for the automation of phone book generation.

Allen-Bradley, Highland Heights, OH; March 1994 to October 1994; Senior Software Engineer

Designed and implemented various software applications and utilities from initial conception through testing. All applications were developed using object-oriented techniques; were written in C++ using Visual C++ and MFC; and targeted Microsoft Windows 3.1.

Major Accomplishments:

Determined the requirements of software components for an integrated software framework that provided interoperability among Allen-Bradley software products.

Designed and implemented an application using lex and yacc that would read C++ source code to generate a Window's help file. The help file listed the various classes and the class interfaces defined within the source code.

Glenayre Electronics, Quincy, IL; March 1992 to March 1994; Software Engineer

Designed and implemented various software applications from initial conception through testing. All applications were developed using object-oriented techniques; were written in C++ using Borland C++ and OWL; and targeted Microsoft Windows 3.1. Interfaced with marketing, engineering and related groups to meet targeted objectives.

Major Accomplishments:

Designed and implemented key components of an application designed to monitor and configure remote sites in a paging system.

Designed and implemented a reusable common class library used by all subsystems within this application.

Designed and implemented a Database Manager that added persistence to instances of C++ classes.

Designed and implemented a Windows user interface for accessing the data contained in the common class library classes.

Tokheim Corporation, Fort Wayne, IN; October 1990 to March 1992; Electronic Engineer

Coordinated development of various software applications. Tasks included initial conception, analysis, design, implementation, testing, documentation, providing user training, and on-going support. Interfaced with marketing, engineering and related groups to meet targeted objectives.

Major Accomplishment:

Designed and implemented a printer manager for a Point-of-Service [POS] system. The final deliverable consisted of a reusable statically linked library of 233 functions written in C and was used by 3 projects.

Microtronics, Inc., Indianapolis, IN; May 1989 to October 1990; Software Developer

Responsibilities included all analysis, design, implementation, testing, documentation, and customer technical support of software applications.

Major Accomplishment:

Designed and implemented an application program to monitor the production performance of the printing industry production environment. The final deliverable consisted of a 30,000 line C program targeted for MS-DOS and a user manual of 130 pages.