

Jeffrey K. Hendrickson
3573 South Stafford Street
Arlington, VA 22206
703.499.6004
jeff@hendricom.com
www.hendricom.com

EXPERIENCE SUMMARY

Over thirty five years of progressive experience in software analysis, design, coding, systems integration, project management, and development of implementation and test procedures for large-scale computer systems. Experience is focused in the development of both applications and systems software in a mobile-server, client-server, corporate intranet, and Internet environment, with extensive experience in pre-sales support, requirements development, and proposal work.

DEVELOPMENT TECHNOLOGY SUMMARY

Web

Web Server - LAMP/LEMP (Linux, Apache/Nginx, MySQL, PHP)
Web Client - AJAX, JQuery, JavaScript, HTML5
Tools - Adobe Dreamweaver, Fireworks. Text editors ATOM, BBEdit

Desktop

Microsoft Visual Studio (Visual C++, Basic)
MinGW / MSYS (C, C++)
REALSoftware Xojo (REALbasic, REALStudio™)

Mobile

Apple XCode / iPhone SDK (C++, Objective C, Java)
Corona SDK - Lua
Eclipse (C, C++, Java)

PROGRAMMING LANGUAGE SUMMARY

C, C++, Objective C, PHP, JavaScript/AJAX, JQuery, BASIC (many dialects), Java, SQL

OBJECT DEVELOPMENT SUMMARY

COM, COM+, DCOM, CORBA

QUEING TECHNOLOGY SUMMARY

MTS, MSMQ, MQSeries

MIDDLEWARE SUMMARY

J2EE, BEA Tuxedo

VERSION CONTROL SUMMARY

Git, Bitbucket

CMS

Drupal (6.x,7.x,8.x), Wordpress

WEB SERVERS SUMMARY

Apache Web Server, NGINX, Microsoft Internet Information Server (IIS), Sun Web Server

GIS SUMMARY

ESRI MapObjects, MapInfo MapX, eGeo

OPERATING SYSTEMS SUMMARY

Windows, Mac OS X, Linux, Solaris, iOS, Android

DEVELOPMENT METHODOLOGY SUMMARY

Agile, CMM, JAD, RUP UML

DATABASE TECHNOLOGY SUMMARY

MySQL, SQLite, Microsoft SQL Server, Oracle ODBC, ADO, OLE DB, DAO, SHAPE, OLAP

NETWORK TECHNOLOGY SUMMARY

Ethernet, TCP/IP, WinSock, NetBIOS/NetBEUI, IPX/SPX, HTTP, FTP, SMTP, POP, X.25, SNA, Asynchronous, SOA (HLA)

ACCOMPLISHMENTS

Oct 2017 - Present United States Department of Commerce (f/t consultant)

Solely responsible for presenting multiple architectures for the new Department of Commerce Drupal 8 migration from the DOC Drupal 7 site. After the architecture was decided on, developed several Drupal modules to support enhancement features desired by the DOC including the Voting Module to track feedback on nodes, a Voting Reporting module to view the feedback, and set up an export infrastructure that allowed the site to be worked on by several developers at once using git. Using lessons learned at DOJ, was also solely responsible for modernizing the DOC's Staff Directory allowing staff to search for other staff members with sub-second response times. The systems were developed in a Linux environment using Drupal 7/8 and a LEMP stack for the server and HTML and Javascript/JQuery/JSON and CSS used to develop the user interfaces. The systems were all developed using Open Source Software.

Oct 2016 - Oct 2017 United States Department of Justice (f/t consultant)

Solely responsible for the development of a Staff Directory site that supported a multi-faceted search for Anti-trust division personnel. Solely responsible for the design, development, and unit testing of the system. The system was developed in a Linux environment using a LAMP stack, MySQL, and JSON for the server components, and AJAX, with HTML and Javascript and CSS used to develop the user interfaces. The systems were all developed using Open Source Software.

Winter 2015 - Fall 2016 Hendrickson Software Components (f/t consultant)

Solely responsible for the development of a Drupal Web Site that supported the publication of a bi-monthly trade magazine.. Solely responsible for the development of the Drupal infrastructure and modules to support the concept of a "magazine issue." The systems were developed in a Linux environment using a LAMP stack, MySQL, Drupal and JSON for the server components, and AJAX, with HTML and Javascript and CSS used to develop the user interfaces. The systems were all developed using Open Source Software.

Aug 2013 - Aug 2016 Executive Office of the President of the United States (f/t consultant)

Solely responsible for the development of a Drupal Single Sign On (SSO) library that other developers could add to their projects to insulate them from having to learn and maintain the security layer of their applications. Solely responsible for the development of a Customer Relationship Management (CRM) ticketing system. Solely responsible for the development of an online collaboration tool for business groups. Participated in the development of data import system from a master data store into a Drupal site using Drush. Solely responsible for a file attachment download and search feature for Drupal using both Drush and some custom modules and views. The systems were developed in a Linux environment using a LAMP stack, MySQL, Drupal and JSON for the server components, and AJAX, with HTML and Javascript and CSS used to develop the user interfaces. The systems were all developed using Open Source Software.

Fall 1998 - Present Hendrickson Software Components (p/t 1998 - 2007, f/t 2007-2013)

Solely responsible for the development of a Drupal system that was capable of supporting the concept of a "monthly publication." This system was used to publish a group's monthly magazine. It grouped different types of content by publication date rendering the illusion of a "monthly issue." Several Drupal support modules were developed to support this system. This system was developed in a Drupal / Drush / LAMP Stack System running on a Linux environment.

Solely responsible for the development of several commercially successful software applications and components including Gettysburg, a Civil War based game, the best selling email filter Purify, and several iTunes published iPhone / iPod touch applications including Ball Turret Gunner, ValentineMaker, AniMinder, BirthdayMaker and SantaMaker. The Civil War based game was developed cross platform using a cross platform development tool with custom functionality developed in Objective C using XCode for the Mac version. The iOS games were developed in Objective C using XCode with a heavy emphasize on utilizing the Cocoa framework and the Model View Controller design pattern to present the user experience, and to implement communication with my servers using a RESTful like interface. Was responsible for the software design, coding, testing, and Internet / iTunes deployment. Was also

responsible for the marketing of the software, order fulfillment, and post sales technical support. Developed all of the HSC websites and LAMP support technology to support this effort. During this period of time I also supported several commercial customers in their software product development efforts, as well as serving as webmaster for my LAMP based website, and cycling blog.

Participated in the development of the U.S. Government sponsored Recalls.gov Android Application. Served as lead developer on a team of five. Was responsible for tasking and auditing the development of the Java classes that were used in the system, the master build, unit testing, and progress reports as well as developing the JSON interface layer, and HTTP communications layer. The system was developed using an object oriented programming paradigm. The system was integrated with several large U.S. Government consumer product recall related web sites using the JSON interface layer. The system was developed for Android using Eclipse, and Java.

Solely responsible for the development of a commercially available language learning tool. Served as Principal Software Architect, designer, coder, and tester of application. Was responsible for all phases of development using the REALStudio cross-platform development tool. The system was developed using an object oriented programming paradigm. The system was integrated with a SQLite encrypted database. The system was developed cross-platform for Windows, OS X, and Linux.

Participated in the development of an online vehicle tracking system. Served as Software Engineer developing the network communications layer using TCP and UDP sockets supporting the proprietary SMS type messaging protocol. Was responsible for the design, coding, and testing of the components that made up the communications layer. The system was developed using an object oriented programming paradigm. The system was integrated with Microsoft SQL Server using Stored Procedures and ADO. The system was developed cross-platform in C++ with the final deployment target built for a Windows Server running Microsoft SQL Server.

Solely responsible for the development of a Fannie Mae 1003 Mortgage Loan Data Collection C# class. Served as Software Engineer developing the class to support the collection of data for submission to the Fannie Mae mortgage underwriting system. Was responsible for the design, coding, and testing of the class. The system was developed using an object oriented programming paradigm. The system was integrated with the .NET framework, and a Microsoft SQL Server database. The system was developed using Microsoft Visual Studio for Microsoft Windows on a server running Microsoft SQL Server.

Participated in the development of a biometric (fingerprint) authentication system for a major hardware reseller. The ActiveXFingerprint ActiveX control allowed the user to register fingerprint data in a Sun Access Manager controlled Single Sign On authentication system. Was responsible for the development of the ActiveX control that was hosted on the client system to collect fingerprint data as a bitmap, converting it to ANSI – INCITS 378 templated fingerprint minutiae data, then once again to a Base 64 encoded string for transport to the server for registration, and/or authentication. Also developed the Proof of Concept Sun Access Manager Plugin in Java / J2EE to service the biometric authentication / registration request. The system was developed using an object oriented programming paradigm. The system was integrated using the Sun Web Server / Sun Access Manager J2EE web infrastructure using MS-SQL Server as a database. The system was developed for Windows using Visual C++ 7.0, MFC, JavaScript for the client components, and Java / Java Server Pages (JSP) / J2EE for the server components.

Participated in the development of a video / audio recording, and management solution for law enforcement. The solution enabled law enforcement officers to record interviews of suspects in their interrogation rooms. The video / audio output file was collected in an .MP4, and/or .WAV container. Was responsible for the design, coding, and testing of the “black box” video / audio recording component portion of the system. The system was developed using an object oriented programming paradigm. The system was integrated with the main solution using a proprietary XML command schema. The system was developed using Microsoft Visual C++, built for a Windows Server.

August 2000 – March 2007 Advanced Technology Systems (f/t employee)

Participated in the development of a war-gaming simulation for the National Defense University, Joint Forces Staff College in Norfolk, Virginia. The Advanced Joint Combined Operations Model (AJCOM) was used to simulate the flow of force units and supplies from a scenario defined origin into a military theater, and then allow for simulated combat using the accumulated units and supplies. AJCOM was capable of supporting a variety of faculty defined scenarios, multiple student interaction via a tasking module, and news groups, including the ability to task air-ground close air support. It supported a rich interactive common operating picture for faculty and students, which was developed using the latest GIS technology from ESRI, and MapInfo. The system was developed using an object oriented programming paradigm. AJCOM was integrated with DMSO’s HLA RTI (An early SOA), ESRI MapObjects, MapInfo MapX, NNTP, and Microsoft SQL Server 2000. The system was developed for Windows 2000 using Visual C++ 6.0, MFC, ADO, and STL.

Participated in the development of a civilian oriented version of AJCOM, the Homeland Security Response Actions Model (HLS-RAM). HLS-RAM was used to develop game scenarios that were based in the continental United States, and involved the deployment, and management of combined military, and civilian response resources to respond to various events including natural disasters, and terrorist activities. HLS-RAM included faculty and student access to the scenarios via the Internet using a thin client developed for a Web browser, and access to distance learning documentation and resources. It supported a rich interactive common operating picture for faculty students, which was developed using the latest GIS technology from ESRI, and MapInfo. The system was developed using an object oriented programming paradigm. HLS-RAM was integrated with DMSO's HLA RTI (An early SOA), ESRI MapObjects, MapInfo MapX, NNTP, and Microsoft SQL Server 2000. The system was developed for Windows 2000 using Visual C++ 6.0, MFC, ADO, STL, HTML and PHP.

Participated in the development of a web-enable, DoD-Approved, one-touch cataloging, ordering and receipting Electronic Data Interchange (EDI) system for the processing of food items. The system was key to providing seamless support for readiness and peacetime operations, and would support approximately 600 sites worldwide and interfaces with the food management systems for all the military services. The system was developed leveraging Microsoft's Distributed interNetwork Architecture, the Component Object Model (COM) and Microsoft BackOffice Technology to develop high performance components for the system. Using COM, the system was developed as an extensible, scalable, robust component set of E-commerce Application Building Blocks. The Building Blocks were put together as a collection of loosely coupled components that make up the application. The components were integrated with the MS BackOffice technologies SQL Server, Transaction Server, Message Queue, Clustering Service and Load Balancing Service to maximize performance, scalability and availability. The system was developed for Windows NT using Visual C++ 6.0, COM, and ATL.

July 1982-July 2000 Shortened for brevity (consultant)

I have a full version of my resume available for you to read if you're interested in the software engineering that I did for a variety of clients including the Department of Labor, SRA, the United States Marine Corps, MCI, PDR, NASA, Mobil Oil, the United States Postal Service, Fannie Mae, Ideas Commercial Systems, Cable & Wireless, IRS, Volvo, and my own company Microcomputer Systems Integration. This extended resume is available upon request.

PERSONAL INTERESTS

Avid Fixed Gear Cyclist, Old School Martial Arts, Swimming, Pistol and Shotgun shooting, anything outdoors, promoting / contributing to Nothing But Nets, and St. Judes Research Hospital charities.

Excellent references available upon request.