

TROY A. GRIFFITTS

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U. S. CITIZEN

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QUALIFICATIONS

30+ year career leading software systems design and development for global corporations, research institutes, and standards bodies; Technology Director, Sr. Software Architect, Sr. Software Engineer. Let me solve your problems with you. You won't be disappointed, but indeed, delightfully surprised.

Architecture Design and Implementation: Object Oriented, n-Tier, API, Web Services	(28 years)	Cross-functional Team Leadership	(18 years)
Java, JSP, JEE, JME, Tomcat	(18 years)	SQL: Oracle, MySQL, PostgreSQL	(23 years)
Web Services, Microservices, REST, SOAP	(8 years)	C / C++	(30 years)
Kubernetes, Podman / Docker	(3 years)	Python, Swift	(1 year)
Portlets, OpenSocial, Weblogic, Liferay	(7 years)	Elastic, Kibana	(2 years)
JavaScript, HTML, CSS	(8 years)	XML: DOM, Schema, XSLT, XPath	(11 years)
Android ADK/NDK	(5 years)	Qt, gtk+	(11 years)
Cross-platform Mobile App Dev, Cordova	(5 years)	CORBA, RMI, JNI	(10 years)
		Embedded Systems	(11 years)
		Unicode, UTF-8, I18n	(8 years)
		MIL STD 2525B, JVMF	(6 years)
		UNIX: Linux, Solaris	(30 years)
		IDEs: IntelliJ, Eclipse	(13 years)
		MS Windows System Prog	(19 years)

EMPLOYMENT

INDEPENDENT SOFTWARE SYSTEMS CONSULTANT

1993 - PRESENT

Phoenix, Arizona

Skills Used: Web Services API Design, Java, Python, Podman/Docker, Portlets, XML, JSON, C++, C, UNIX: Linux, Solaris, SQL: Oracle, SQL Server, MySQL/MariaDB/Percona Galera DB Cluster, PostgreSQL, Interbase/Firebird, Weblogic, CORBA, RPC

Experience consulting in a variety of industries.

US Army: Designed and developed a publish/subscribe messaging system and portlet UI using Java, JavaScript/AJAX methodologies in a Weblogic environment. **Resolution Media Group:** Designed and developed JEE portal training software for the airline security industry deployed at over 30 airports, including OAK and LAX. Served on the editor panel for the **OSIS** XML specification-- an XML markup schema and specification for biblical literature (<https://www.crosswire.org/osis/>). Contracted by **The American Bible Society (ABS)** to train an international audience on the OSIS specification and produce a large repository of documents conforming to the standard. **MicroAge:** Led development to port C / RPC based e-commerce framework to C++ / CORBA. System integrates with multi-warehouse inventory, reseller chains, and legacy accounting / ERP systems. Also developed a Java Swing frontend which accesses the C++ framework via CORBA. **Systems Technology Group:** Managed the networking and development team. **USAGroup:** Developed an RPC gateway mechanism between Win32 and UNIX systems for their student loan system. Wrote bespoke inventory control, invoicing, and shop management packages for the tile, jewelry, and mobile fueling industries. Developed analysis and marketing tools for the automotive industry.

WEB SERVICES API ARCHITECT

Ericsson

NOVEMBER 2016 - APRIL 2020

Scottsdale, Arizona

Skills Used: Web Services API Design, Kubernetes, Podman/Docker, Java, XML, JSON, SQL

Function as the principle architect and engineer for the Ericsson Unified Delivery Network (=CDN+) analytics web services API.

SR. SOFTWARE ENGINEER

Computer Sciences Corporation / General Dynamics

MAY 2004 - MAY 2010

Scottsdale, Arizona

Skills Used: Embedded Linux System Design and Development in C++, Qt, MIL STD 2528B, JVMF.

US Army Contract: Served on a highly talented team developing intelligence sensitive, next generation combat equipment for the United States Army: The Land Warrior Combat System. Responsible for many components of the system, including JVMF Messaging, 2525B Symbology, Daylight Video Sighting, Thermal Weapon Sighting, Helmet Video Sync, and Component Hardware Built In Test Subsystem.

SR. SOFTWARE ARCHITECT / SR. SOFTWARE ENGINEER

Evergreen

1998 - 2002

Chandler, Arizona

Skills Used: Java/JEE, CORBA, SOAP, EJB, JSP, Servlets, XML, SQL Database Design, UNIX: Linux/Solaris.

Responsible for heading Evergreen's architecture team to steer and design new generations of Evergreen's 100% Java e-commerce software. Led a team to design and develop an XML document repository, transaction broker, and workflow engine for **General Electric (GE)** which is deployed corporate-wide. The tool supports the query of documents through complex XPath, and provides a mechanism for specialized processors to be fired on documents based on conditional events. Designed much of Evergreen's core e-commerce product, eCential, including the Open Commerce Framework (OCF), which allows business logic to be developed as POJOs without regard for the container in which they will reside. Supported scaffolding generation includes: CORBA, RMI, EJB, and 'Local' (single-tier). Responsible for the initial design and implementation and the first supported transport: CORBA. Developed many eCommerce components for use within the framework, including graphical reporting tools, order routing and management tools, and connectors to credit card authentication services, shipping services, etc. Created a robust XML object API on top of W3C DOM which helps to solidifying XML schema within code and isolates application developers from raw XML tag-based APIs. The eCential engine is at the heart of many e-commerce packages on the market today, including: Unify's eWave, Caldera's eBuilder, and incorporated into solutions by ZLAND, SilverStream, BlueStone, Extensity, Novell, and others.

Sr. SOFTWARE ENGINEER
Besserman Corporation

1988 - 1993
Scottsdale, Arizona

Skills Used: C++, C, UNIX, SQL, DB2, x86 Assembly.

Led a team to design and implement a Win32 / C++ port of the company's UNIX / C based Industrial Hygiene / Health & Safety system, Sentry. The framework includes database abstraction classes and data-aware window controls. Wrote a database abstraction layer for the company's UNIX / C system including both a database driver to their existing proprietary database system and a driver to DB2 running on AS400. Developed inter-process communications drivers to talk over Novell's IPX/SPX protocol. This involved x86 Assembly and CPU mode switching between protected mode and real mode for each call back and forth to Novell's libraries which, at the time, were real mode only. Sentry deployment sites include: **Procter & Gamble, Johnson & Johnson, Motorola, The United States Air Force, Allied Signal, Toronto Fire Department, and Union Carbide.**

RESEARCH AND DEVELOPMENT

Sr. ACADEMIC RESEARCHER AND SOFTWARE ARCHITECTURE CONSULTANT
Akademie der Wissenschaften zu Göttingen

JULY 2015 – PRESENT
Göttingen, Germany

Skills Used: Web Services API Design, Java, SQL, XML, JavaScript, OpenSocial, Liferay.

The Göttingen Academy of Sciences is the second oldest of the seven academies of sciences in Germany. It has the task of promoting research in collaboration with academics in and outside Germany. Duties include consulting on the direction for technology and development for global teams researching and producing critical edition of ancient text, including the Coptic-Sahidic Old Testament, Diplomatic Editions from the White Monastery-- primarily Shenute, the Septuagint Greek Old Testament, and others. Adapting software designed and developed previously for the Institute for New Testament Text Research (Institut für Neutestamentliche Textforschung-- INTF) to the needs of other research projects at the Academy.

Sr. SOFTWARE ARCHITECT
Institut für Neutestamentliche Textforschung

JULY 2011 – PRESENT
Münster, Germany

Skills Used: SQL, Java, JDBC, XML, JavaScript, OpenSocial, Liferay, Mobile App Development, Cordova

Commissioned by the German Research Foundation to design and develop a global collaborative research environment to capture the workflow of the premier institute in the world for New Testament manuscript text research as they produce the most comprehensive critical edition of the Greek New Testament, analyzing 5600 ancient manuscript copies. The system is designed with a 4-tier architecture: RDBMS/Git → JEE/Java POJOs → RESTful web services API → HTML widgets, and supports resource digitization, image display and annotation, object tagging, multifaceted catalog search, on-the-fly realtime manuscript collation with visual variant graph display, group management and security, etc. The system integrates this custom functionality with an existing, mature Java portal framework, Liferay.

User access: <https://ntvmr.uni-muenster.de>

Public web services access to this digital research environment: <https://ntvmr.uni-muenster.de/community/vmr/api/>

Software website: <https://vmrcr.org>

DIRECTOR / Sr. ARCHITECT
CrossWire Bible Society (<https://www.crosswire.org>)

1992 - PRESENT
Tempe, Arizona

Skills Used: C++, Android ADK/NDK, Cross-platform Mobile App Development, Cordova, Java, JSP, SQL, Database Design, Embedded, Qt, gtk+, Linux, UNIX.

Currently lead a global team of developers and direct an organization responsible for providing high quality textual research tools and developer libraries to Bible Societies and other organizations around the world. Started The SWORD Project, an initiative to develop a 100% ANSI C++ compliant cross-platform publishing engine for research and study of biblical texts and related materials, with frontends on Microsoft Windows and Windows Mobile, Mac OSX and iOS, Android, Linux/UNIX, and web-based. Manage and set goals for teams developing and releasing software, negotiating publishing rights to research material, and converting data for use with CrossWire's software framework. Ported framework to Android NDK and WinCE. Wrote a Cordova/PhoneGap plugin for the engine to expose the functionality in JavaScript. Wrote a partial VCL / gtk+ port of Borland's Visual Component Library to facilitate easy porting of Win32 VCL based GUIs to Linux / gtk+. Worked with Bjarne Stroustrup to develop a 'property' mechanism for use within ANSI C++ semantics. Created natural language learning tools which run in JME and JEE environments (older feature phones, PDAs, and desktops).

EDUCATION

PHD, UNIVERSITY OF BIRMINGHAM; BIRMINGHAM, UK

2018

Software for the Collaborative Editing of the Greek New Testament

https://docs.google.com/document/d/1716Npj0EHVvHTITJ09ZyU_yDpplqp-NRaB2zgU6jI4c/edit

MDIV, PHOENIX SEMINARY; SCOTTSDALE, ARIZONA

2008

BSc, GRAND CANYON UNIVERSITY; PHOENIX, ARIZONA

2003

Double Major: Computer Science and Christian Studies