

# Gary T Zullo

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## SUMMARY OF QUALIFICATIONS

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An accomplished and seasoned software engineer specializing in object-oriented design and analysis with extensive experience in the full life cycle of the software design process (both in Agile/SCRUM and RAP) including requirements definition, prototyping, proof of concept, design, implementation, testing, documentation and deployment.

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## TECHNICAL EXPERTISE

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**Languages:** C#, C/C++ (managed/unmanaged), Java (VJ++/J#/F#), VB/VB.NET, Assembly, ASP.NET, AJAX, JSON, Classic ASP, SQL, T-SQL, PL-SQL, PHP, ColdFusion, CGI, PERL, HTML, XHTML, DHTML, CSS, JavaScript, VBScript, JScript, Flash Action Scripting, XML, XSL, XSLT, XPATH

**Frameworks:** .NET Framework (1.1, 2.0, 3.0 (WPF) and 3.5), Win32, p/Invoke, COM/DCOM, COM+, RPC, ODBC, Stored Procedures, Packages, DTS, Triggers, Maintenance Plans, ADO, ADO.NET, SOAP/Web Services, User Controls, Server Controls, Windows Services

**APIs:** Crystal Reports, Win32, MFC, ATL, STL, Various application-specific APIs/SDKs, Windows SDK, Windows DDK, GDI/GDI+, JDE, JDK, MSI, ESRI

**Concepts:** OOP, MSMQ, UML, RUP, SCRUM/Agile (RallyDev and TFS), n-Tier systems architecture and development, Scalable enterprise systems architecture, Real-time systems architecture, MS Office XP/2003 development, MS Outlook development, MS SharePoint development, MS BizTalk development, Real-time photorealistic rendering, TCP/IP, Templates, Generics, Macros, Sockets/Stack, Heap/Stack management, RPC, Messaging, ActiveX, Remoting, RAID, Event-based processing, Memory/Stack/heap corruption debugging, Difficult real-time memory debugging, In-process COM Servers, Out of process COM servers, Com Callable Wrappers, Management Application Block

**Software:** Visual Studio.NET, Visual Build Pro, VisualCron, DirSync, Whole Tomato Visual Assist, Eziriz .NET Reactor (Obfuscation), SharpDevelop, UltraEdit, UltraCompare, SlickEdit, DreamWeaver, Visio Enterprise Modeler, MS SQL Server (2000/2005/2008), Access, MySQL, MySQL Administrator, PostgreSQL, Visual Source Safe, Team Foundation Server, Visual Interdev, MS Biztalk, MapDotNet, Cinema4D, Adobe Photoshop, Adobe Illustrator, Adobe PageMaker, Adobe AfterEffects, Gimp, Flash, IIS, Outlook, Word, Excel, Access, Oracle DBMS (9i/10g), Infragistics NetAdvantage (2004/2007) controls, NDoc, MUnit, NUnit, NAnt, FxCop, Spy++, RoboHelp, HelpMaker, Dev Partner Studio, BoundsChecker, CVS, Sourceforge, Filezilla, SmartFTP, SoundForge, Cakewalk, CoolEdit, nTrack, Pro Tools, SoftICS, WinDbg, Sys-Internals tools, FL Studio.

**Systems:** Windows 2008, Vista, 2003, XP, 2000, NT 4.0/3.5.1, ME, 9x, MAC/OS, UNIX, Linux

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## PROFESSIONAL EXPERIENCE

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### HiTouch Care Solutions, Inc. Architect/Technical Lead/PM

**3/2007-6/2008**

Served as co-architect of a multi-tiered system responsible for the acquisition, importation, monitoring and escalation of bio-metric data via a monitored call center for a health watch system. Was responsible for technical lead work, scoping and definition as well as project manager for both developers and management.

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## PROFESSIONAL EXPERIENCE (Cont.)

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- Co-Architected a multi-tiered modular system for the acquisition, monitoring and escalation of general bio-metric data
- Designed and implemented a multitude of custom GUI controls ranging from charts to multithreaded list views, etc. using C#, C++ and MFC
- Managed project resources, two (2) developers and other peripheral parties, created/scheduled iterations and drove progress using Agile/SCRUM methodologies.
- Created an automated build process that incorporated 23 separate components built and obfuscated as well as creating an installer on a nightly basis using Visual Build Pro, VisualCron and custom coding.

### **ScriptLogic Corporation, Boca Raton, FL** **Senior Software Engineer/Graphic Artist**

**3/2005–Present**

Serve as senior engineer as a member of the development team of the flagship product (Desktop Authority). Duties include requirements definition, object modeling, design, tier structure, development and user interface specifications, scalability leveraging, etc for each release.

- Designed and implemented asynchronous patch and anti-spyware downloader and file cache using C#, C++, XML, custom encryption and compression algorithms.
- Responsible for several GUI modifications to the flagship product (Desktop Authority), which is, in large part, done in MFC/C++
- Designed and implemented several new GUIs to the flagship product which have almost all set a design precedent in terms of usability using Visio, C#, C++, MFC, ATL, STL and SQLDMO
- Designed and implemented a multi-threaded windows service to govern critical product services (as plugins), monitor web service health and perform decision-tree logic upon error conditions using C#, XML, WebServices and C++
- Designed and implemented a stateless multi-threaded web server utilizing C#, ASP.NET, custom thread-pooling and Visio class diagramming.
- Designed and implemented a plugin architecture for plug-and-play functionality for future functionality utilizing C#, C++, WebServices and Visio class diagramming
- Designed and implemented a custom thread-pool for multi-threaded applications that induces much less overhead and much more control over each thread member than the built-in .NET CLR thread pool using C#
- Designed and implemented a GUI component to manage plugins (functional contained processes with or without configuration needs) and the service itself utilizing C#, WinForms and WebServices
- Designed and implemented a GUI component to allow for instant and real-time database maintenance of the installed instances (for the product) utilizing C#, WinForms, WebServices, SQLDMO and custom control authoring.
- Designed, Architected and implemented a methodology for the definition and rendering of data-driven GUIs without the need for design-time configuration using C#, XML and XSLT
- Designed and implemented client-side component responsible for all upstream and downstream communication/file transfer from a file service on the LAN utilizing C++, Named pipes, Custom network communication code (TCP/IP stacks, page management etc)
- Designed and implemented communications protocol for upstream/downstream secure data transmission over LAN/WAN for licensing and/or general data requests
- Designed and implemented a client-side extension for deploying key client services on Vista systems with UAC enabled by way of GPO utilizing C++, MSI/MSIExec and Win32 APIs
- Designed and implemented a GUI GPO deployment mechanism for getting client-side extension onto Vista clients (above) utilizing C#/C++, AD, XML, custom controls and MSIExec.
- Designed and implemented a flexible API language editor to automate/manage changes made to a published scripting API that we currently employ as part of the Desktop Authority product. This tool is an in-house application that uses a C# WinForms GUI with managed SQL backend.

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## PROFESSIONAL EXPERIENCE (Cont.)

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- Designed and implemented data collection tool for QA/Technical Support to use when diagnosing problems in the field. This tool was written in C# using WinForms generating dynamic XML configuration data files.
- Designed, modeled and animated the Desktop Authority robot mascot using Cinema4D
- Participated in design and code reviews to flush out design aspects that may be considered high risk and/or prevent the team from delivering on time before, during and at the tail-end of development.
- Participated in the design and refinement of team design pattern standards. These standards helped mitigate risk in design and helped better estimate development cycle duration.
- Participated in the implementation of SCRUM (Agile) project management workflow.
- Designed and implemented a common RPC messaging subsystem to facilitate common remote communication outside the bounds of web services using C# and C++
- Developed a system level methodology for hosting .NET controls in MFC application hosts using C#, MFC, C++ and ATL
- Designed and implemented a backend SQL database and transaction management solution for the company's flagship product (100K+ seats sold). Utilizes both SQL Server MSDE and SQL Server 2000/2005, Visio 2003 Enterprise data modeler to design the logical and physical layers using UML and other various design patterns to ensure sound design, Created stored procedures using T-SQL for all data access to system (and to prevent attacks such as injection).
- Developed a stateful .NET object model using C# that the legacy MFC GUI application loads as a COM callable wrapper.
- Created a backend DAL using C# and the standard Model-View-Controller pattern and included a factory pattern for the database module. The Object Model communicates with the DAL over Web Services.
- Implemented an ACL layer and Role Based Administration rules engine for customers in order to delegate access within their OUs. User accounts are directly tied to Active Directory users and groups.
- Implemented a middle-tier BLL to abstract all business logic into a COM callable wrapper and Interop (for .NET)
- Provide on-going technical assistance when QA/technical support unable or cannot determine cause of issue(s)
- Ported several in-house applications from VB to C#.NET and extended functionality using C#, stored procedures, SQL Server, Visio and MSI technologies.
- Implemented several web services being used in the flagship product to handle data transfer and licensing using C#
- Implemented custom cryptography/decryption libraries for usage in licensing using C++
- Implemented a GUI design standard to which all GUI development will adhere to using common GUI usability practices across 13 products.
- Currently designing and architecting a common logging mechanism to which all component that generate logging (either debugging or tracing etc) will do so in a uniform and singular fashion. Using C#, C++ and Visio.

### **I.S. Consulting, Inc., Tallahassee, FL**

**8/1999–3/2005**

#### **Software Developer/Database Architect/Graphic Artist**

Served as a software developer/team lead/graphic artist where duties included requirements analysis, risk assessment, design, tier structure, development and user interface specifications, scalability leveraging, implementation, deployment and managing customer expectations. Duties also included creating several graphics for products, advertisement, web sites and tradeshow booths

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## PROFESSIONAL EXPERIENCE (Cont.)

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- Designed and took part in the implementation of an automated bill generator and tracking system for the Florida House of Representatives to digitize the entire bill process using SharePoint, C#, C++, VB.NET, WinForms, WebForms, windows services, web services, IIS, MS SQL Server,
- Designed custom exception management framework, extending the Microsoft Exception Management Application Block.
- Designed and implemented a point tracking system for Florida-based teachers for the rural teacher consortium Florida learning Alliance (my-points) using ASP, ASP.NET, C#, SQL Server, T-SQL, stored procedures, HTML, XHTML, CSS and Photoshop.
- Designed and implemented backend SQL Databases for bill system used by the Florida House of Representatives
- Performed regular DBA duties (data integrity, clustering, replication, maintenance) of Florida House of Representatives' datacenter
- Designed and implemented backend databases for most (if not all) applications developed in which I was either a developer, team lead, manager or DBA utilizing either SQL Server or Oracle
- Designed and implemented backend database for the Florida Department of Agriculture utilizing Oracle 9i as well as performed regular maintenance of said database post-deployment
- Designed and implemented a client tracking web-based application for the Florida Department of Agriculture that minimized customer contact effort by several orders of magnitude using C#, ASP.NET, SQL Server, Visio and customer management.
- Designed and implemented a scripting API to extend functionality of the my-points system to its users utilizing C#, T-SQL, Stored procedures and Visio
- Designed and implemented a help desk ticket management system for the Florida Department of Health using VBScript, Outlook Public Folders, C++ and SQL Server
- Designed and implemented Senate Bill Generation wizard for the Florida Senate using Word, VB and C++
- Designed and implemented several printing and layout Adobe Photoshop plugins for Zep, Inc. using C++
- Designed and took part in the implementation of server-based control suit called MapDotNet to provide interactive mapping applications on the web or intranet using C#, WinForms, WebForms, WebServices, ESRI technologies and XML/SOAP
- Designed and implemented a java-based tool for rapid application development using VJ++
- Responsible for researching new technologies and incorporating them where applicable.
- Designed several logos, press materials and graphics for press, tradeshow and product advertisement using Flash, Photoshop and PageMaker and Illustrator
- Researched and designed a BizTalk system for in-house document management using orchestration.
- Designed and implemented an in-house hour-tracking system for employees using C#, ASP.NET and SQL Server
- Designed and implemented a scholastic test-generator using C#, ASP.NET and Visio and SQL Server

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## OTHER PROFESSIONAL POINTS OF INTEREST

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- Developed shareware application ("ColorPlus") which is a dynamic pixel color data sampler. Using C#, C++ and p/Invoke. ColorPlus was designed and implemented to dynamically sample screen pixel data and allow the user to capture color codes (HTML, RGB, CMYK, etc) to be exported and consumed in other applications and/or configurations. Link furnished upon request.
- Developed shareware application ("GetPix2PC") which is a CanonSDK implementation to download camera images/movies from canon "prosumer" level cameras. Using C#, CanonSDK and p/Invoke GetPix2PC was designed and implemented to easily and somewhat-automatically download images

and movies from my cameras without having to download/install outdated and somewhat less-than-stellar applications that come with the camera. Link furnished upon request.

- Designed and am in progress with ongoing development of a 3D (N)PR (Non-Photorealistic/Photorealistic renderer) multi-threaded and multi-cpu aware rendering engine. This implementation is in C++ and is purely class-based (OOP) and uses templates/generics for plugin-ability. The goal is to use this render engine in the 3D package I use (Cinema4D) to allow for greater realism in my renders. This renderer is/will be capable of physically accurate renders.
- I regularly take part in projects that involve modeling 3D objects, texturing existing 3D objects and/or generating animations on a per-project demand.
- I regularly take part in open source projects that I either use or enjoy contributing to such as Mozilla FireFox.

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## MEMBERSHIPS/CERTIFICATIONS

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- Microsoft Certified Professional (#2180166)
- Microsoft Certified Software Developer (MCSD) ***In Progress***
- Member, ACM (Association for Computing Machinery)
- Member, HTML Authors Guild
- Member, FSU Marching Chiefs

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## PERSONAL/ARTWORK PORTFOLIO WEBSITE

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<http://www.garyzullo.com>

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## EDUCATION

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**Florida State University**  
Tallahassee, FL

**1994-2000**

***B.S. in Computer Science***

***B.S. in Mathematics***

Majors: Computer Science, Mathematics

Minors: Music, Psychology, Spanish

**Graduation: Spring 2000**