

Clifford L Hall

Software Architect

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SUMMARY

Senior Flex / AIR Architect with over 25 years professional experience analyzing, designing and developing software systems for a wide array of operating environments.

My skills as a software developer and architect have advanced in step with the industry, with top-down procedural thinking giving way to object-oriented analysis and design, with judicious use of design patterns.

SKILLS

Programming Languages: ActionScript 1, 2 & 3, JavaScript, Java, Perl, awk, Bash Shell Script, C, C++, Visual Basic, QuickBASIC, Gupta SQLWindows, UniBasic, Point 4 Business Basic, Datapoint DataBus, 80x86 Assembly, 6502 Assembly, Commodore Basic, Apple][Basic, TRS-80 Basic

Frameworks, Servers and Toolkits: Adobe Flex, AIR, PureMVC, Cairngorm, ASUnit, CVS, Subversion, Flex Data Services, BlazeDS, LiveCycle ES, WebORB, JBoss, J2EE, JDBC, JUnit, XOM, COM/DCOM, Apache Web Server, IIS, Oracle DB, MySQL, SQLite, MS SQL Server, Dbase, UML

Software and Tools: FlexBuilder, FlashBuilder, Flash, Photoshop, Illustrator, Visio, Enterprise Architect, XMLSpy, Charles, WireShark, Mercury Interactive's WinRunner, LoadRunner and TestDirector, Side Effects Prisms and Houdini, Autodesk 3D Studio Max

Web and Cloud Development: HTML, JavaScript, CSS, XML, XSD, SOAP, Joomla, CGI, 960.gs, Host and DNS management, Google Analytics, Checkout, AdWords, Amazon S3

OS Platforms: Windows, Red Hat Linux, SGI IRIX, Novell UnixWare, MIPS RISC OS, FreeBSD, Solaris, Point 4 OS, DOS, CP/M, PDP-10/TOPS-20

RECENT WORK

Futurescale: <http://futurescale.com>
PureMVC: <http://puremvc.org>
Zarqon: <http://zarqon.net>
Ahead: <http://ahead.com>
JITC: <http://bit.ly/cA5xPe>
Dorado: <http://bit.ly/bD9jTF>
STRATCOM: <http://bit.ly/bF6N53>
WeightWatchers: <http://bit.ly/O9c8L>

EXPERIENCE

President, CEO **2004-Present**
Futurescale, Inc 3 Maple Ridge Ct, Jonesborough, TN 37659

I provide corp-to-corp consulting focused on the architecture, design and development of Rich Internet Applications. Futurescale is an Adobe Solution Partner, and I was an Adobe Certified Instructor for Flex 1.5 and 2. I am the author of the PureMVC Framework for the Flash Platform, as well as the Zarqon Active License Control System for Flex and AIR.

Clients include Adobe Systems, Ahead.com, Assurant, Avtec Systems, FlashCommGuru, EnableUs, EchoEleven, Effective UI, Cisco Systems, Dorado Systems, HailAppraiser, Jockey Club, Lockheed Martin, MatchMine, NYK Logistics, State Street Bank, Resultant Systems, Rapid Ninja, Universal Mind, Verizon Wireless, Weightwatchers International, Whitman Hart and Zfx.

Senior Developer / Tech Lead **2001-2004**
Register.com, Inc 575 Eighth Ave, New York, NY 10018

For the second largest Internet Domain Name Registrar, I performed intensive Java/J2EE/EJB component design and development in a large enterprise environment.

- Technical lead for mission-critical Registry Communications J2EE components
- Extensive design of XML Schemas for component configuration, using XOM for creating Java document object models
- Creation of persistent Java object storage and cache facility using JISP
- Architect and implement Validation Rules engine, which led to the creation of a new J2EE pattern for Contextual Command Validation
- Co-architected DNS provisioning subsystem, using EJB session, entity and message driven beans, JDBC for pure database reads and JCA for file system access

Application Developer **1999-2001**
About.com, Inc 220 East 42nd St, New York, NY 10018

For one of the Internet's most traveled reference sites delivering custom content to millions of people daily, I worked on financial aspects of the business as well as features of the public facing site.

- Aggregate and process traffic and metrics from Oracle, MS SQL Server, and MySQL for internal revenue reporting, distributed workforce payroll and profit-sharing, demographics research, and our in-house sales order system
- Enhancing and optimizing content management tools used by the Guides to upload, index, and schedule release of static and dynamic content
- Building internal forum application for Guide communications
- Creating dynamic interface elements for navigation of our public forums
- Pioneering pre-RSS XML data sharing to embed syndicated content
- User customization features for site personalization and search
- Integrating traffic analysis with survey results to generate more accurate 'related site' links as well as target demographic ad positioning

Programmer / Analyst **1998-1999**
Prodigy Communications 44 South Broadway, White Plains, NY 10018

For one of the first and largest Internet Service Providers, I was hired explicitly to build and maintain the computer lab used for testing and ensuring the Y2K compliance all of Prodigy's applications. After successfully completing this task, I transferred to the coding group responsible for Prodigy Instant Messaging, Chat, and Forums.

RECOMMENDATIONS

"Cliff stepped into an ongoing, \$7 million effort with over 1500 pages of specifications and requirements and began contributing on day one. He took over development of what had been identified as the program's biggest barrier to on-time delivery, the user interface, and transformed it into a polished, ahead-of-schedule component that our end users were ecstatic for. Customers with a wide base of experience with diverse Common Data Link terminals have said that Cliff's user interface is the best looking, most intuitive interface they have ever used on such a device. I could not recommend Cliff Hall and Futurescale more highly than I do. Futurescale will absolutely deliver superlative results in a timely manner."

— **Brian Connell**, Avtec Systems

"I had the pleasure of having Cliff on my professional services engagement for a top-tier national lender, customizing a product that Cliff had helped develop with the Product Engineering group within Dorado. Cliff is a very skilled engineer who's passionate about the quality of his work and the success of his projects. I'd happily work with him again in any capacity."

— **Chris Luebcke**, Dorado

"When it comes to Flex and Flash, Cliff is one of the most knowledgeable and capable people I know. He's easy to work with and does a great job of thinking things through. I've hired him to help with two of my projects and he's done a great job of taking care of me and getting what I needed both times!"

— **Clarke Bishop**, Resultant Systems

"Cliff is very intelligent and thinks out of the box. He has excellent communication skills. He was an integral part of the team and all the architectural designs went through him. I was proud to have him in my team."

— **Anu Vajjala**, Register.com

WRITING

Author of the book *ActionScript Developer's Guide to PureMVC*, 262 pgs, published by O'Reilly Media <http://oreil.ly/puremvc>

SPEAKING

I gained public speaking skills as a Certified Adobe Flex Instructor, delivering educational courseware to numerous corporate clients around the country. Since then, I have given a number of speaking engagements about PureMVC online and around the world. In person at O'Rielly Ignite / Adobe MAX '07, Chicago, Adobe Regents Park, London England, Adobe Offices, Hamburg Germany, Shiller House Copenhagen, Denmark and Organic, San Francisco. Online at Pirate Radio HQ from the Adobe MAX '08, The <HEAD> Global Web Conference.

EXPERIENCE

Software Architect /Lead Developer **1997-1998**
Cimtek Medical Company 2700 South Roan St, Johnson City, TN 37659

This startup was aimed at closing the informational gap between physicians, who purchase equipment like Ultrasound machines, and the hardware makers, whose sales forces are still scaled to primarily service hospitals. I architected and implemented the company's flagship product, The Physician's Office Guide, as well as their medical supply e-commerce application.

- On-disc content from manufacturers, updated via the Internet
- Custom specification comparisons of equipment from various manufacturers
- Searchable database of Continuing Medical Education events worldwide
- Online gateway for purchasing medical supplies from vendors
- Production of a multimedia, narrated product demo

Animator / Developer / Webmaster **1994-1997**
Zfx, Inc 1008 Executive Park Boulevard, Kingsport TN 37660

A unique media company, which produced both commercial broadcast animation and Internet-based business applications, in addition to operating as the region's first Internet Service Provider.

- 3d modeling, lighting, and animation for broadcast commercials
- Co-architected OZX; a dynamic, Perl-based Content Management System
- Design and development of Client Management software for internal use
- Webmaster for the ISP, managing over 200 local small business websites
- Created Webmaster's Lounge – analyzer of storage and traffic statistics

Programmer / Analyst **1989-1994**
Bridge Computer Systems, Inc 6438 Kingsport Hwy, Spurgeon, TN, 37615

A provider of custom software solutions for local government, Bridge services most of East Tennessee's County School and Court systems. Applications developed here were mostly targeted for mini-computer operating systems, and later ported to UNIX.

- Touch-screen cash register and accounting system for School Food Service
- Document imaging and indexing system for Court Management System
- Purchase Order/Inventory for Electrical Contractors
- Physical and Commodity Inventory for School Food Service
- Employee Benefits insurance billing with Payroll interface

Programmer / Technical Writer **1988-1989**
Professional Data Services 315 W. Oakland Ave. Johnson City, TN 37605

An early leader in business software solutions in East Tennessee and Virginia.

- Developed features and end-user documentation for several in-house packages including GL, AP, AR, and Payroll
- Implemented version control, tracking modifications and branches on over 500 programs at 36 client installations

Co-Founder, Programmer / Analyst **1985-1987**
Data Management Group 202 E Watauga Ave, Johnson City, TN 10018

- Designed and developed Recording Studio Project Management application including graphical mixing console and tape librarian
- Created an extensive, proprietary relational database and application development system for the early IBM PC, used to create solutions for Retail Point-of-Sale, Serialized / Non-Serialized Inventory, 911 Data Retrieval, Video Store Management and Real Estate Property Listings

Assembly Language Programmer **1982-1984**
Data Equipment Supply 8315 Firestone Boulevard, Downey, CA 10018

One of the largest suppliers of video games for small computers such as the Apple II, Commodore PET, VIC-20, C64, and C128. I created and optimized graphics and sound routines for various games in 6502 Assembly Language.