Rod Kestler

Software Architect / Lead Developer

CONTACT INFO

10 Bounty Road East
Benbrook TX 76132
USA

rod@hatchinnovations.com

404.889.7965

rodkestler.hatchinnovations.com

11 June

American / US Citizen

SKILLS

C#	24 Years
.NET Core 3/5/6/7	6 Years
AWS	6 Years
Azure	2 Years
Terraform	4 Years
Javascript	20 Years
ES6	6 Years
HTML5 / CSS3	10 Years
RDBMS (MSSQL 2012, 2016, Sybase, IBM DB/2, Oracle)	20 Years (combined)
jQuery	10 Years
React (18.X and previous)	7 Years
Angular	3 Years
GraphQL	2 Years
Networking (Sockets, UDP, Web Sockets)	8 Years (TCP/IP, Custom Protocols in C++ and C#)
WPF	12 Years
UWP	5 Years
MFC	8 Years
WCF	12 Years
Node.js	2 Years
PCAP / NMAP	2 Years

OBJECTIVE

I am a result-oriented, self-starter with broad hands-on experience in creating distributed systems, automation, and visualization. I believe in honesty, impeccability, and a lead-by-example approach with people, tempered with empathy. Quality, reliability, and performance are the most important metrics.

WORK EXPERIENCE

ARCHITECT / PRINCIPAL DEVELOPER

First American Title — May 2022 – Present

I served as an architect on two teams supporting platforms which provide real-estate title searching and risk assessment for people and properties.

- Design implementations/epics using AWS, Jenkins and Terraform – we use S3, SQS, Lambdas, Step Functions, EC2 instances, ALB, API Gateway, Route 53, ECS and ECS Fargate and EKS + Camunda 7 & 8
- Guided developers and help them overcome blockers during sprints, including working samples.
- Advise Product Owners and Business Analysts on risks, order of operations and dependencies.
- Planned and implemented a major functional expansion of the platform with modular, more flexible serverless components.
- Booted up a new team to do a green field replacement of a 22-year-old system – design for new platform is my work, including AWS topology design, writing technical stories, time estimates, mentoring, code reviews and sample authoring.
- Conduct formal Enterprise Architecture reviews involving advising best practices for AWS cloud architecture.
- Guided the team(s) through React / Redux component implementations and debugging, often via pair coding or writing portions of their assigned work (All teams at First American use React 18.X and some form of Redux) ES6 language varied by team – one team uses Javascript, while the second team uses TypeScript.
- React work included GraphQL implementations that I implemented and maintained

ARCHITECT / LEAD DEVELOPER

Big Shots Golf — Mar 2022 – May 2022

I served as an architect and lead developer for the golf-game company Big Shots Golf, which is a startup whose technology stack includes React and .NET Core 6.0 and hosts exclusively on Microsoft Azure.

- Led a vendor hand-off from Cognizant for a .NET Core 6.0 / EpiServer (CMS) enabled site.
- Designed and implemented a membership / CRM system with .NET Core 6.0, hosted in Azure, SQL Server 2019 + CosmosDB back end.
- Developed CI/CD pipelines for a multi-environment stack with Azure Dev Ops
- Wrote 2-year architectural plan for entire enterprise covering API design and topology

Web interfaces were React 17.X using EpiServer via REST API

LEAD DEVELOPER

GameStop Inc — July 2021 – Mar 2022

I served as the lead developer for the Game Stop Store Systems team. My responsibilities included mentoring, architecture design and implementation for mission critical systems supporting retail operations. This includes a wide array of REST and legacy WCF SOAP services hosted on on-prem servers, EC2 instances and/or AWS API Gateway instances. The in-store architecture includes a WPF-based POS ecosystem with a wide variety of backing service processes, including some S3-sourced async processes. I wrote the near-real time pricing system for all stores and led a modernization effort including migrating the team's code base to .NET Core 5/6 as well as a database modernization effort for in-store operations and new API design. GameStop hosts on AWS exclusively including API Gateway, EC2 instances, S3, SQS/SNS, Lambda's and AirFlow integrations predominantly. My team also maintained some web API's that were Node.js/Express based. Wrote a Roslyn-enabled search tool for finding component usage by type to assist with refactor planning. Web store interfaces were React 17.X components, while the POS system itself is a WPF application.

SENIOR PLATFORM DEVELOPER

Orion Communication, Inc — February 2021 – July 2021

I served as the platform developer for a product development company which makes a scheduling, roster and leave enablement platform for Police, Fire and rescue workers. My duties involved refactoring and updating their aging platform code base. I have completed a refactoring of 120K+ lines of ASP.NET code on .NET 4.6, including ADO, WCF and SQL Server data layer components. I also wrote a draft implementation for a modern, OpenID compliant SSO/Authentication system with 2 factor authentications for this product. This environment is Azure-based and all web API's were implemented as serverless Azure App Services.

SENIOR DEVELOPER IV

NCR — December 2020 – February 2021

I served briefly as a senior developer IV for NCR on their POS (Point of Sale) Aloha product line. My duties involved C++ based maintenance and feature additions, diagnostics of runtime problems with both native C++ and COM/ATL, and I wrote a documentation harness that parsed their code base using an AST parser to produce a searchable index. That tool was written in C# / .NET 4.7 with WPF. I left due to lack of challenge and disorganization at the managerial levels.

TECHNICAL LEAD DEVELOPER / TEAM LEAD

GameStop / Microsoft XBOX All Access Launch — June 2020 – November 2020

I served as a team lead developer for a team of around 30 developers organized in two teams, one onshore in the DFW area, the other offshore in Bangalore. In addition to doing all code reviews, mentoring, and prototyping, I also write code on this team. We are producing a micro services integration between new services, existing services, and a production POS (point of sale) application which enabled the launch of Microsoft XBOX All Access in the fall of 2020. This project involved implementation on .NET Framework 4.7, SOAP/WCF services and existing micro services hosted as AWS Gateway endpoints, all serverless Lambda. Integration between multiple disparate systems was the focus of this project.

PLATFORM ARCHITECT

HPE — June 2018 – June 2020

I served as the platform architect for the HPE Sales Tools engineering team which is responsible for developing and maintaining a suite of internal and partner facing tools which provide data collection, mapping and sizing functionality for a wide array of HPE and competitor big data storage, compute and HCI/dHCI hardware. I also planned/designed hosting for the platform, and I have done comparative strategies with Azure and AWS. This system will be live on AWS but was initially planned to target Azure. My development responsibilities included building a sizing platform written with .NET Core 3.1 (microservices and SQL Server/Mongo backend) with a React 16.X front end. I was the lead and architect for this platform which provides interactive product performance and capacity sizing for HPE Big data storage and compute platforms. I was also hands on with development as well as leading the team in terms of architecture.

PRINCIPAL ARCHITECT / LEAD DEVELOPER

Hatch Innovations, LLC — April 2006 – June 2018

I started Hatch Innovations, LLC in 2006 and have worked with a wide array of technologies, frameworks, and clients. The vision behind Hatch was to focus on product incubation and system implementation for other companies - an idea which is encapsulated in the name of the company. We have been fortunate enough to work with some large companies. The chronological order of clients and projects is:

EXPERT WITNESS, LISCR VS. AIS (LEGAL EXPERT WITNESS T-SQL/SQL2016/ASP.NET/MVC 4.0/C#)

April 2017 to August 2017

Was hired by the firm of Marzouk and Parry, LLC in Washington, DC to be an expert witness in a legal case between the Liberian Shipping Registry (LISCR) and Applied Information Systems (AIS). My client was the software development firm, and my job was to analyze the code, TFS work history and database design and then arrive at an objective technical assessment. I then had to testify and be cross examined in Washington for the hearing. The system was written using jQuery, ASP.NET MVC 4.0, C# and SQL 2012. My client prevailed by receiving a favorable arbitration result.

MICROSOFT WINDOWS 10 CREATOR'S UPDATE DEMO APP (C++, MSVC++. COM/ATL, C#, UWP, DIRECT3D 12, 3D MODELLING, BLENDER)

August 2017 to December 2017

Was sought out to produce a UWP application in support of this Microsoft Windows 10 Creator's Update launch. This project was fielded via a company called The Industrious, themselves sub-contracted to Experience for Mankind out of Los Angeles. I was brought in as an "emergency Direct3D" expert, but I ended up building the entire application myself due to resource issues. The most significant feature was a custom Direct 3D rendering engine, written in C++ and embedded into the UWP/C# application using Swap Chain Panels. This was an exceedingly complex and short timetable

project, but launched on time and was featured in all Microsoft stores globally and in 15 different languages (during Christmas 2017-2018 season)

ONCLAVE NETWORKS, INC (C++/MSVC++/ATL/COM/ACTIVEX, C#, PCAP/NMAP, WCF, WPF, REACT.JS / ES6, WEBPACK, NODE, SQL 2016)

April 2017 to March 2018

Was hired to design and implement a network threat monitoring and mapping suite for a startup in the Washington, DC area. The system focuses on IoT vulnerability mapping and real-time threat detection and can cause devices to "disappear" using layer 2 over layer 3 encryption. My portion of the system included an offline mapping studio written in WPF/C# and an online repository which was a suite of web services written with WCF/C# and is managed by an ES6/React.js front-end written on an ASP.NET MVC 5.0 backend. I used common Node.js tools for building, such as Babel and Webpack.js. The networking component portions of this platform include a COM runtime written with ATL/ActiveX.

FOCUS BRANDS (C#, WCF, ESB DESIGN & IMPLEMENTATION, XML, SOAP, SSL, WPF)

October 2016 to April 2017

Designed and implemented an ESB system for the loyalty program for Focus Brands (Auntie Anne's, Cinnabon, McAllister's, Moe's etc.). The ESB system was written in C# and used WCF as a plugin suite into an ESB engine called Neuron ESB (sold by a CA based company called Neurodesic). This involved analyzing business and data flow of the existing enterprise and then factoring in new business process and security needs, as well as scalability analysis and then implementing that design in C# and WCF. The solution featured a visual monitoring console (written with WPF) which received real-time data over UDP. The system went live in the early fall of 2016.

NCR –"PLAY AT THE PUMP" (C++, EMBEDDED, SOCKETS, WEB SERVICES, WIN32)

May 2016 to October 2016

Wrote a complete lottery implementation in C++ for Windows CE 3.0 – 5.0 and Win32 based pump controllers, including a Win32-based graphical simulator tool, test harness, documentation, and architecture supervision. Acted in as technical lead for the team of developers. Advised in design of XML based web service and worked out technical flaws in the API. Designed specification and implementation of a dynamic screen display and data capture engine for gas pumps.

I also wrote a test driver application with MSVC++/MFC and which had a scenario graph written as an ATL/COM component.

ATHLETESON.COM (MVC 4.0, ANGULAR 1.3, CSS5, JQUERY, BOOTSTRAP, C#, WEBAPI, AZURE, SQL 2012, SIGNALR, I18N)

May 2015 to April 2016

Designed and implemented a social networking site for athletes – back end was SQL 2012 with a Web API service, built within an ASP.NET MVC 4.0 site scaffold, and with an Angular 1.3 + Bootstrap front end. I designed and wrote at least 90% of the code, including all the back end, the MVC site, the stored procs and schemas, the chat implementation, and the Angular / CSS and Bootstrap front end. The site has a chat system written with SignalR. I also designed and coordinated the hosting strategy on Microsoft Azure, although the client has since moved from that platform.

GEORGIA-PACIFIC (MVC 3.0, ANGULAR 1.2, C# / .NET 4.0, WPF, T-SQL, C++/ATL/COM, UDP/SOCKETS, THREADING)

November 2013 to September 2015

Designed and implemented two complete distributed systems for Georgia-Pacific:

1. **GP OASIS**: A distributed HMI kiosk and production management system with PLC integration (Using OPC). Written as a set of WCF services connected to a SQL 2008 back-end, a Windows service for offline data caching, and two distinct WPF applications – one for the factory floor kiosks, which was touch-screen enabled, and one for the administrative console used by plant managers. The entire system is written with .NET 4.0, WCF, WPF and SQL 2008. There was also a web-based dashboard piece written with Angular 1.2, Bootstrap and jQuery. The Windows Service has a UDP broadcast subsystem which provides admins with real-time monitoring of the entire system and plant activity. I wrote all of those code – I had a BA who helped with requirements and installation and QA support, but the development was 100% my personal work.
2. **GP ACORN**: Designed and implemented an IoT (Internet of Things) sensor managed platform for general use at GP plants. The system used a plugin design whereby sensors could be plugged into the platform and would be auto-discovered using a variety of native protocols ranging from sockets, to ModBUS, PLC integration, to UDP. The system has a similar architecture to the OASIS system – there is a Windows Service running in each plant which provides data capture and auto-discovery services to vendor-specific sensor/hardware devices, and this service in turn communicates to a centralized WCF-based web service. Administrative services are provided by a custom WPF console which can be run anywhere in the enterprise. Just as with OASIS, I designed and wrote all of the code – this was not done with a team.
3. **ActiveX / COM Support**: I supported and modified several ActiveX/COM components which are used internally in several GP line-of-business web sites, specifically the material management portal, which is called MP2. The component suite I developed involved one full ActiveX control in the browser and a print spooler component which was multi-threaded. Both the ActiveX control and the print spooler component were written with the MSVC++/ATL tool and library technology.
4. **GP.System Framework**: This .NET/C# based framework was a leave-behind which I developed for the OASIS and ACORN projects. I provided the teams with training and documentation on using the framework, which included advanced threading, encryption, security, web services and IoC helpers for building applications on the .NET 4.X runtime.

EWI WORLDWIDE / GREAT PARKS (DIRECTX 10.0, C#, WPF, WCF, POX/JSON SERVICES, SOCIAL MEDIA)

September 2013 to October 2013

Was recommended to EWI Worldwide by the former team lead of Razorfish's Emerging Experiences group – see AT&T Store of the Future below. I designed and implemented a large format 4K video wall with active/dynamic WPF-based, web service active overlays (weather, Yelp check ins, etc). The overlay was accomplished with WPF visuals and animations composited with DirectX 10.0 in a single window WPF app. The rendering horsepower was provided by a workstation-class machine running a high end nVidia Quadro card which was housed in a hidden enclosure. The system runs in a welcome center for a neighborhood project called Great Parks Pavilion located in Irvine, CA.

RAZORFISH EMERGING EXPERIENCES – BRIDEGSTONE STORE OF THE FUTURE (OBJECTIVE C, C#, WCF, SOCKETS, IOS/MOBILE, THREADING, AWS)

August 2013 to September 2013

Following the major success of the AT&T Store of the Future project with Razorfish's Emerging Experiences, I was requested and selected to provide implementation of a similar custom broadcast socket protocol for a similar project for famous tire-maker **Bridgestone**. I was also required to create a custom protocol socket client for iOS devices, which I wrote with X-Code and Objective C. The main protocol implementation and server was written in C# using TCP/IP sockets (unlike the AT&T version which utilized WCF abstractions instead). I designed, implemented and unit tested the entire protocol, and assisted the iOS developers in integrating it with their UI client code.

We used AWS for hosting server endpoint during development, staging and production.

RAZORFISH EMERGING EXPERIENCES – AT&T STORE OF THE FUTURE (C#, MVC 3.0, WCF/SOCKETS, BOOTSTRAP, KNOCKOUT.JS, WPF, CSS5, JQUERY, MOBILE, AWS)

January 2013 to July 2013

My first engagement with Razorfish was as staff augmentation to build out the back-end of a retail "Store of the Future" project for AT&T. But I quickly became the technical lead and took over responsibility for the entire back-end, supervising development of the mobile app, and the implementation of a custom socket protocol (called "5D") which was used to provided event-driven/publish-subscribe behavior between the various kiosks running in the store. This store won awards in the retail space and was quite a big deal at the time, causing the head of Publicis to personally fly to Atlanta to congratulate the manager of Razorfish Atlanta office. The store was deployed on Chicago's famous Michigan Avenue. I personally wrote a significant portion of the entire implementation, including the SQL 2008 back-end, the WCF web services, which I exposed via SOAP, POX and JSON to both the WPF kiosk clients as well as the mobile application. I was also the supervisor and architect for the mobile application, which was web-based and down-leveled for multiple devices, using jQuery Mobile, Bootstrap, and Knockout.js.

I also designed and wrote the custom socket-based object streaming and broadcast protocol that was used throughout the store between the kiosks for real-time updating of customer experience throughout the store.

WINTELLECT / MAKING EVERLASTING MEMORIES CAPTURE-TO-CLOUD (DIRECTX, FLASH/ACTIONSCRIPT, C#, WPF, C++, ACTIVEX)

October 2012 to December 2012

Was hired again by Wintellect to a service-to-cloud pipeline and workflow for their client Making Everlasting Memories, for whom I had previously implemented their video capture solution. This involved creating a deployment pipeline for the capture filter I had previously developed and setting up a batch processing engine which would run conversions all day long and deploy the results to configurable cloud-based end points. We used a private server array for hosting the resulting content.

A portion of the video capture pipeline in this solution was written with MSVC++, ATL and ActiveX/COM wrappers.

WINTELLECT / MAKING EVERLASTING MEMORIES - PROTOTYPING (HTML5, XNA/DIRECTX, C#, C++)

July 2012 to October 2012

The second phase of a project with Wintellect and their client "Making Everlasting Memories" involved exploring various prototypes for playback and/or conversion of existing video assets. The challenge was to show them different ways of leveraging the videos they were converting using the capture filter previously developed. To do this I developed several different strategies – some of which involved new playback strategies, and some which involved automated deployment and playback within modern browser scenarios, including Flash and HTML based video elements. To support this prototyping, I used a combination of C#, Microsoft XNA / DirectX and HTML5 (for playback). The result of the project was that the client chose automated deployment, which resulted in a new project phase – see above.

GANGBOX, LLC (MVC 3.0, C#, WCF, SQL 2008, SILVERLIGHT, JQUERY)

March 2011 to June 2012

Architected and implemented a social networking site for the commercial construction industry (think: LinkedIn for commercial construction specifically). This involved travelling to meet with the marketing team in Boston, interfacing with the client and designing and implementing the back-end for the entire site, as well as prototypes of the web experience. The site was an ASP.NET MVC application with WCF web services exposed as SOAP, POX and JSON, and built on a SQL Server 2008 RDBMS instance. There were several data loading and admin tools written in Silverlight, and the web prototype content was vanilla jQuery and CSS4. (Project ran into difficulty between client and marketing company and funding was cut)

WINTELLECT / SCHLUMBERGER (C++, DDK)

June 2011 to September 2011

I managed and supervised a project to convert a custom USB driver from the older Windows 2000/XP era DDK to the more modern Vista/Windows 7.0 DDK. I did not do the work, but I did supervise the work and assist with debugging. This project was through Wintellect with their client Schlumberger.

WINTELLECT / PROMMIS PERFORMANCE ANALYSIS & CODE REVIEW (C#, ASP.NET, SQL 2008)

March 2011 to May 2011

Was hired by Wintellect to perform a code review and trouble-shooting session for a company called Prommis Solutions. The nature of the problem was in finding a threading problem inside a Win32 C++ application which had the additional complexity of running inside a Citrix server with 30 or so clients live all day. I found the problem within the allotted time and budget and the client was pleased, despite it resulting in additional development time to correct the threading problem.

MICROSOFT – MUSEUM NAVIGATOR (C++, SILVERLIGHT, EMBEDDED VISUAL C++)

January 2011 to February 2011

Built a proof of concept application on a prototype Windows CE device for Microsoft. This was right before Surface came out and there was a degree of exploratory implementation going on, and the Windows CE team was trying to show that embedded devices could compete with the Surface tablet. This application was a GPS aware and RFID tag sensing app, written in 100% C++ but utilizing Silverlight (which was the only way to use Silverlight on Windows CE at the time). The app was used in an internal showcase at Microsoft. This was a short project by design.

WINTELLECT / MAKING EVERLASTING MEMORIES – CAPTURE FILTER DEVELOPMENT (C++, DIRECTX, DIRECTSHOW)

November 2010 to January 2012

The first phase of a project with Wintellect and their client “Making Everlasting Memories” involved writing a C# based conversion engine to capture from their source video and convert simultaneously to DVD and MP4/H264 formats. I used a combination of C++, DirectShow and C# to create a capture framework. DirectShow and C++ were used to implement a capture filter, and C# was used to automate the creation of the DirectShow graph, using COM interop and a C# object model and custom UI tool.

WINTELLECT / HP (AMP ARCHITECTURE REVIEW – C#. ASP.NET, SQL 2008)

October 2010 (Short project by design)

Was hired by Wintellect to do a code and performance review for HP’s AMP product suite. This involved going onsite at the HP campus in Alpharetta and doing an in-depth code review for two weeks and drafting a document with my findings. The team was very pleased, and I made some friends among both the developers and management. It was a tough assignment as it had a time limit / budget limit and the code base was large and complex.

WINTELLECT / METRIX PERFORMANCE REVIEW (C#, ASP.NET, WCF)

October 2010 (Short project by design)

During the other half of October, I was sent to a company called Metrix to conduct a performance review of a very large code base. I had to review hundreds of thousands of lines of C# - some process code and some ASP.NET, in search of as many performance bottlenecks as possible, and specifically to eliminate several problem areas. I did this so successfully that the site could sustain slightly more than an order of magnitude of concurrent requests (about 1200%).

WINTELLECT / KURTZWEIL READING TECHNOLOGIES (BLIO E-READER, C#, C++, JAVASCRIPT, JQUERY, SILVERLIGHT, WPF, DIRECTX)

July 2009 to October 2010

Was hired by Wintellect as a sub-contractor to their client Kurtzweil Reading Technologies (owned and operated by Ray Kurtzweil) to act as an architect and senior developer on their Blio product line. This involved two phases – first, performance improvements on their existing WPF reader, and second, the porting of the e-reader to a new, rewritten Silverlight version. The Silverlight version involved exceedingly advanced work, including dynamic theming, numerous custom controls and framework level assets, and consumption of Java based service for content and metadata.

Some of the reading and pagination interop for open-source free e-books was done with Javascript, and some of the effects (page curl etc) involved direct use of DirectX HLSL hardware-accelerated shaders.

MICROSOFT BING TEAM (C#, SILVERLIGHT, BING, POX/XML)

February 2009 to June 2009

Was hired by the Microsoft Bing team (referred by Microsoft Silverlight team's product manager, Barak Cohen) to build a Silverlight SDK for Bing. This was a framework-grade toolkit for Silverlight developers to use as examples and reusable components for consuming Bing web services from Silverlight applications and components. The toolkit featured an animated and weighted 2D search graph, as well as several traditional tile and list custom controls. I spoke at the 2009 MIX event in Vegas with the Bing team. https://channel9.msdn.com/Events/MIX/MIX09/T33F

PROTOGROUP LLC – REGEN STUDIO 2.0 UPGRADES (C#, WCF, SILVERLIGHT)

September 2008 to January 2009

Was hired again by ProtoGroup, LLC to add management, build monitoring, increased runtime security and distributed licensing to the existing product, which I designed and implemented. Most of this work involved C#, WCF work, and the administrative interfaces were written in Silverlight.

MICROSOFT SILVERLIGHT TEAM - BANK OF AMERICA COMMUNITY WIDGET (SILVERLIGHT, C#)

August 2008 (Short project by design)

I was contracted by the Microsoft Silverlight team to construct a community / social networking application for Bank of America and the Silverlight team, as a joint project. The project ended up getting cancelled due to complications surrounding curation and monitoring of content, as the component involved video capture of messages from Bank of America customers. Technically, it was a Silverlight gadget, to be embedded in web pages, which consumed a web service exposed by Bank of America and which allowed users to contribute to and advertise participation in a wide variety of charities.

MOXIE INTERACTIVE – GENTIAN INTRANET PORTAL (C#, WCF, SILVERLIGHT, HTML, CSS, JQUERY, SQL SERVER 2005)

April 2008 to August 2008

I was hired by the CEO of Moxie Interactive to produce a state-of-the-art intranet portal and community system for Moxie Interactive's customers. This system was implemented in a combination of Silverlight and classic web user interfaces, with a backend on SQL Server 2005 and WCF web services. The system featured a single-sign-on platform that federated their Active Directory domain with OpenID and other LDAP-compliant stores, document storage, a custom full text search engine, completely theme-aware user interfaces and designable, drag-and-drop gadgets, and collaboration via art proofing and comment sharing / chat.

MOXIE INTERACTIVE / 20TH CENTURY FOX / MICROSOFT SILVERLIGHT TEAM (SILVERIGHT 1.0, JAVASCRIPT/JQUERY, SILVERLIGHT STREAMING, I18N)

February 2008 to March 2008 (Two trailer sites, short by design)

I was hired as a Silverlight expert to provide development services to Moxie Interactive, 20th Century Fox and the Microsoft Silverlight team. Through this project I became a Microsoft vendor and gained a reputation with the Microsoft Silverlight team and several other internal teams which would lead to additional business. I implemented movie trailer sites for both What Happens in Vegas and X-Files 2. The most complex of these was the Vegas trailer site, which included live chat via Windows Messenger, but implemented with Silverlight 1.0 and Javascript. Both trailer sites are written with Silverlight 1.0 and Javascript. I also worked closely with the video conversion teams to get the streaming formats correct and deployed to an early version of what became Azure. The Vegas site is also multi-lingual in nine languages.

PROTOGROUP, LLC – MICROSOFT ACCESS PROFILER (C#, .NET 3.X, CODEDOM, WCF, ASP.NET, C++, LOTUS NOTES API, MSVC+/ATL/ACTIVEX)

July 2007 to January 2008

Was contracted again by ProtoGroup, LLC to implement a new addition to the existing product called ReGen Studio, which I had written and designed previously. This phase of development involved adding Microsoft Access as an input source for ReGen Studio, which is a code conversion and generation suite.
Updates to the parser component were written at this time, which included work in expanding the parser/profiler component written in ATL/ActiveX with MCVC++.

PROTOGROUP, LLC – MOSS 2007 PROFILER (C#, .NET 3.X, CODEDOM, WCF, ASP.NET, C++, LOTUS NOTES API, MSVC+/ATL/ACTIVEX)

March 2007 to July 2007

This phase of work with ProtoGroup, LLC was comprised implementing an input profiler for Microsoft Office Sharepoint Server (aka “MOSS”). The product already had support for generating SharePoint 2003 web parts, and now the client wanted MOSS 2007 support. I was hired to do this. The code was written in 100% C# and relied heavily on CodeDOM usage.

Updates to the parser component were written at this time, which included work in expanding the parser/profiler component written in ATL/ActiveX with MCVC++.

PROTOGROUP, LLC – REGEN STUDIO PRODUCT INCUBATION (C,C++,C#, WCF, SQL SERVER 2005, SHAREPOINT 2003, XML, XSLT, MSVC+/ATL/ACTIVEX)

May 2006 to February 2007

My first customer after leaving Moxie Interactive was a former Microsoft MCS executive who had a dream to build a tool that could read legacy coding platforms and export them to modern coding platforms. The first target on his agenda was IBM Lotus Notes. He found me through some former colleagues at Stingray Software who referred me as a resource who could achieve difficult engineering tasks. I took the work, and 350,000 lines of C# and 65,000 lines of C++ later, I had an engine that could read Lotus Notes applications and spit out ASP.NET Web Forms and SharePoint web parts. It was a major feat of engineering, and included work in C, C++, C#, WCF, SQL Server 2005, SharePoint 2003, .NET 3.X and heavy use of CodeDOM. This was one of the most definitive and transformative periods of my technical career.

The profile for this system is implemented as a C runtime with a static API which in turn is wrapped with an ATL/COM/ActiveX component for use with other clients, such as C# applications.

DIRECTOR OF DEVELOPMENT

Moxie Interactive — November 2005 - April 2006

Started as an architect and was quickly placed on the **Verizon Get It Now™ global store front** project, which was in trouble at the time. Using a hand-picked team of internal developers and my extensive knowledge of distributed systems, networking and scalability (from previous years working in industrial middle-ware), I was able to turn the project around and save the client relationship, following some brutal weeks of working and burning midnight oil. I was promoted to Director of Development following that project, but ultimately ended up leaving because it was clear that I had transitioned into a nearly 100% management role.

- Led a team and implemented much of Verizon's Get It Now™ global store site - a massive scaling ASP.NET site
- Worked in a multi-media rich environment with integrations with dedicated designers and lots of advanced Flash media
- Learned a great deal about leadership, and how to properly scope and manage large projects

PRODUCT DEVELOPER / CONTRACTOR

ProtoGroup, LLC — June 2005 - October 2006

I was hired by a former Microsoft MCS executive to help him incubate his product, a system called ReGen. ReGen was a code generation suite which read legacy code and translated it to modern platforms. I designed and wrote the entire platform, which had plugins for reading Lotus Notes and output plugins for **ASP.NET, JSP**, and **SharePoint Web parts**. The entire system was composed of about **60K lines of C++ and 390K lines of C#**, with a back-end comprised of SQL Server 2003 and web services, and a client UI built on a custom GDI+ framework I built for the product branding.

SENIOR WEB SOFTWARE ARCHITECT

NC Department of Health and Human Services — June 2003 - June 2005

Served as an architect for the State of North Carolina's experimental web architecture team. This involved designing a comprehensive suite of application SOA services, with web UI plugins (i.e. custom web control plugins) which allowed developers to snap in services to applications, which required nothing more than CSS and configuration shells.

Project Highlights

DocStore: A SharePoint competitor, but with less bloat and better performance – SQL Server / Web Service based with its own indexing services for most MS Office documents.

WIRM (Web Identity Role Management) – This was our single-sign-on IPrincipal platform that we used for A&A for all our SOA modules. I helped build this with a guy named Jake Morgan, who is now CTO of Elsinore Technologies.

Several other similar modular systems, including systems for providing calendars, forums, flexible XML document storage, and training schedules, all wrapper in a common framework that we supported and distributed to other teams.

All work at DHHS was a combination of .NET 2.0 for the new development, plus I maintained a variety of UNIX based sites written in Python, PHP and C++ CGI's.

I also maintained two different **ATL/COM/ActiveX** components which were legacy elements from previous developers.

SENIOR ARCHITECT / Lead Developer

Spectrabyte, LLC August 2002 – June 2003

Established a corporation to continue advanced web development and to deal with my expanding client base more efficiently. The corporation has focused on development of web sites, commerce sites, and mobile Pocket PC applications. In addition, development of a user interface library, designed to be a replacement for MFC has been underway, as well as a hierarchical data storage engine, and a team-based web development studio.

Project Highlights

Developed an enterprise level mobile sale force automation application targeted for the Pocket PC 2002 platform, using a combination of eMbedded VB and eMbedded C++ components, and SQL Server CE, and a back-end system running on SQL Server 2000, SAP and XTND Connect.

Built two advanced commerce sites, including features such as custom document generation, workflow and approval engines, document routing, and kit products – technologies used were ASP, COM+ (ATL) business objects, SQL Server 2000 and BizTalk Server 2000

Developed an advanced Web-based Survey Engine, capable of delivering interactive media content to participants for a local medical research company – technologies used were ASP, COM+ (ATL) business objects, SQL Server 2000

Product Development (For all Products listed I am the designer, architect and lead developer)

Canvas XE (C++/MSVC++/MFC): Developed a skinned replacement for MFC that relies on custom windows message loops, STL and a thinner approach to a windows library, using templates, and design patterns.

HydraStore (C, C++, ATL/COM/ActiveX): Developing a hierarchical data storage engine to use as a generic document server. The product, which is in development now, supports versioning, and uses “type factory” objects to create default instances of object types declared by the application. A Custom IDispatch implementation is used to make collection member access transparent in automation and scripting clients.

Spider XE (C, C++, MSVC++/MFC, ATL/COM/ActiveX): Also in development, the studio product will use both the Canvas XE UI library and the Hydrastore Lite version of Hydrastore (see above) to provide code versioning and code pattern storage.

Senior Software Engineer / Project lead

Datanet-Pomeroy May 2001 – August 2002

Internal B2C Commerce Webmaster / Developer – Net Order Desk

Hired to build a complete commerce system; Requirements included shopping, pricing, sales and marketing statistical stats and control, Internet-based workflow and document routing, kit product engine and asset tracking. Some web interfaces were down leveled for the Compaq iPaq Pocket PC device. Completed the first version in September of 2001.

Senior Architect / Team Lead

Continued work on internal project-oriented consulting accounts, including the following:

- BizTalk 2000 integration for Toshiba Battery Pack of America
- Custom Financial Portal for First Union (Built on Microsoft .NET, C#)

Web Architect

Continued to serve as a general resource for setting the direction and nature of web technologies employed by the company's Advanced Systems Group (ASG). This included making decisions, generating plans and implementing advanced web technologies involving XML, DHTML, and other technologies such as VS.NET, ASP.NET and C#, and some classic ASP.

Mentoring

Mentored junior developers in the usage of standard Web Technologies, usage of Microsoft language tools, VS .NET jumpstarting, XML technology usage and development, general development skills and help with debugging.

SENIOR SOFTWARE ENGINEER

Stingray Software (A Division of Rogue Wave) May 2000 – May 2001

Internet Dispatcher Senior Developer

Hired as a Senior Developer to develop and mentor junior developers during the Internet Dispatcher product development phase. Implemented early prototypes, the **integrated development environment, web-based application** for the product (**DHTML/Advanced JavaScript** GUI with some server-side **COM+** Objects which proxy the debug session and user-preferences), in beta 1 and beta 2 versions of Microsoft's .NET platform (**C#** Language). I also was one the lead developers for the client API which ran on **Windows CE** (iPaq, HP Jornada, Vadem Clio devices), and was implemented as a Win32 DLL for use by MFC client applications and was developed with **Embedded Visual C++**. This component was a custom socket API that had the overall capability of picking up inbound payloads from the server's DSR (Device Service Registry) layer.

Internet Dispatcher was essentially a server product that could abstract push and pull protocol situations to a single logical endpoint, for the purpose of making Wireless and PDA web applications easier to build. The server-side component was written with **Visual C++** and Microsoft's **ATL Server**. During this project, the VP and Director of Marketing were so impressed with the IDE for Internet Dispatcher that they asked me to become the…

Webmaster for Stingray.com (hyperlinks listed herein are defunct now due to Rogue Wave's dissolution of Stingray)

During the Internet Dispatcher project, senior management was so impressed with my **DHTML** and **Javascript** capabilities, that they asked me to become the webmaster for the company and lead a team of web developers in building the new version of the public site at www.stingray.com, plus the secondary Wireless development site at www.flextalk.com, along with www.devuniverse.com. The current prototype I built for Stingray can be viewed at http://www.spectrabyte.com/Stingray2. It features a dynamic **DHTML** implemented portal, high quality rollover menus, user selectable site **skins**, and **advanced database driven content**. The entire site is configurable via a desktop application, written in **MSVB 6.0**, and uses a User-Role-Rule system to allow each person in the company to edit only the parts of the web site for which they have been granted access. (The prototype was unfinished, due to lay-offs, and is not down leveled for Netscape.) The site's data repository is built on **SQL Server 2000**, and earlier prototypes ran on **SQL Server 7.5**.

Sales Automation Center

Successfully implemented a new Web Lead system, which increased sales traffic by more than 250% and resulted in dramatic gains in the sales bottom line. Implemented an Intranet application, implemented entirely with **DHTML** and server-side **ASP** code to access, maintain and report against the lead data. Reporting engine used was **Crystal Reports 7.0**, along with some standard Web Reports, which were implemented as **XML** streams from Web Services built with **SOAP Toolkit** version 1.0, **ASP** and standard **XSLT** transformations. This **Web-based application** also has a site admin application written in **MSVB 6.0**.

Web Architect

I also served as a general web architect for the company, driving directions and designs for new products, such as Objective Web Toolkit and Objective Toolkit for DHTML. I employed various powerful web technologies such as **XML, XSLT, SOAP** protocol web services, and helped the company develop its initiative to migrate current **C++** based desktop applications to **Microsoft .NET** web service enabled systems.

Mentoring

Mentored junior developers in the usage of **COM/DCOM/ATL/ActiveX & DirectX**, general OO and C++ development techniques and practices.

SAP Integration Lead

Served as the in-house reference for SAP integration during the Sapphire 2000 demonstration initiative in 2000.

Senior Software Engineer / lead developer

iWork Software, LLC August 1998 – April 2000

FIRST YEAR UNDER DCSERV 2.2 AND 2.3 RELEASES (C++/MSVC++/MFC/ATL/DCOM/ACTIVEX)

Served as a lead developer and architect of a line the distributed data collection and delivery products called dcServ, including major overhaul of dcEngine 2.2A and 2.3, re-education of the primary software development staff in techniques for improving database access, code performance, threading, memory management and better **OOD/OOA** practices. Improved the company's entire system of product delivery by developing a wrap and release process. This led to advances in **QA** practices, version control and an expansion of the QA department.

SQLOBJECT DESIGN AND IMPLEMENTATION

Authored a complete generic, **thread-safe Database access library/DLL**, which is now used in all products that do database access by the company. Object library enables mapping of databases, standard and dynamic rowset operations, statement-based SQL actions and is compliant with the **ODBC 3.0 API** specification. Library can copy tables and views from one database to another, of dumping and running SQL Scripts, and can create and drop tables in any of the five DBMS' supported (**SQL Server 6.5/7.0, Oracle 7.X.X/8i, Sybase Adv. Server, IBM DB/2 (UDB) for Windows NT (v5.0), and MS Access 97/2000**). All of the functionality is available via an object model, and I have since written a new COM version, which is far superior in capability.

DCLOCK PRODUCT

Designed and developed a complete replacement for the company's product licensing system, using a **COM** license runtime object, written with **ATL**, an **MFC**-based key management App, and a static **InstallShield** support library. Key containers for this system used **RSA RC4** for hash generation, and **EDES** for symmetric encryption. The product is called dcLock is used internally for licensing all iWork Software products.

XGUI INTERFACE LIBRARY (C++ MFC EXTENSION LIBRARIES)

Prompted by management's request for a "Kai-look" for the upcoming Aurora Framework project, I developed a custom Window Library for the Client UI called XGUI, which features many custom MFC Window and Control Classes and a sophisticated Application object capable of delivering **HTML Help**, of loading external **UNICODE** language DLLs, built-in Splash, About Box and error recovery system and many more features. It has slick, black dialogs, dozens of custom controls and a Connector View that uses design patterns, advanced vector algebra and can be extended to do just about anything. XGUI runs on top of a **GDI** engine that draws many complex primitives, such as gradient and radial fills, bitmap fills and complex gadgets.

AURORA FRAMEWORK / DCEXECUTIVE PRODUCT (COM/DCOM/COM+ ON THE SERVERS AND MFC AND THE XGUI LIBRARY ON THE CLIENT, XML WAS THE CORE MESSAGING FORMAT)

Designed and architected a complete distributed Work Flow Design and control system called dcExecutive (part of the current Aurora Framework product development project). The system features a multi-user **DCOM** Server Farm (3 **ATL** implemented **Free-Threaded** servers) and a concurrent Win32 Client. The dcExecutive Client itself has a VISIO-like connector view, which allows Applications which publish Metadata to the framework to participate in User-defined workflow. Workflow compiler creates **Java** objects, which can execute other Java-based business objects, such as **EJB**'s or can be used in web environments, such as within **JSP**'s, decision control and **XML/XSLT** based **DOM-to-DOM** data transformation services. Compiled Java is then downloaded to a **JNI** enabled Business Process Engine which delivers XML-based message data across asynchronous Queue-to-Queue connections and synchronous socket-based connection protocols. I built two of the **DCOM** servers and the client GUI and **custom MFC library** (see XGUI, above), and designed everything, including the Metadata architecture and specifications. This product made it to market and is called Enterprise Frameworks. Principal advisor to all managers, and the CTO in matters of technology direction, tools used and development practices employed. All the DCOM Servers were tested using **MSVB 5.0 and 6.0**, which is my standard practice for testing **COM/DCOM** and **COM+** objects.

Consultant / Developer

METRO Information Services May 1996 – August 1998

Worked on a variety of contract positions with clients ranging from Champion, Sara Lee Hosiery, Tultex and others. Developed business solution objects, servers and applications using languages and tools ranging from Visual Basic 4-5, MS Visual C++ 4-5 and DEC VMS C and Assembly.

EDUCATION

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

Major: Computer Science 1994-1995

Attended UNC-G after leaving the US Army in 1991, and a brief stint as a special effects designer / programmer. Initially I majored in archaeology but changed to computer sciences due to a change in interest level. I did not complete my degree due to external financial and family issues.

US AIR FORCE SCHOOL OF STILL AND DIGITAL IMAGING, AURORA CO

Honor Graduate, class 880504 1988

I did a 3-year tour of duty in the US Army as a still photographer, and as such was trained at a US Air Force school in Aurora, Colorado. I learned just about everything one can learn about film, development chemistry, view cameras, copy cameras, SLR and medium format cameras, lenses, lighting, slide chemistry, slide printing (R3), color printing and development, portrait photography, photo-journalism, and forensic photography. I was also honor graduate of my class.

MILITARY

US ARMY

16 February 1988 – May 05, 1991

Served as a still digital photographer, performing tasks in photojournalism, forensics and intelligence for a 3-year tour of duty (plus an extension due to Desert Shield). I was honor graduate from my photography class of 880504. I served in the 501st Military Intelligence Brigade in Yongsan, South Korea and in the 12th Cavalry Regiment at Fort Knox, Kentucky for my final duty station.