FRANCISCO T. MARTINEZ

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SKILLS

Programming Tools, Frameworks and, Computer Languages: .NET 6.0 SDK, .NET 8.0 SDK, .NET Core 3.1 SDK, .NET Framework 4.8 SDK and earlier, Mono 6.x and earlier, Azure SDK 2.9, Visual Studio 2022 and earlier, Visual Studio Code, Apple's Xcode for Mac OS X and iOS development, Visual C++, XML, XSLT, XAML, HTML 5, CSS 3, JavaScript (ES5), TypeScript, jQuery, jQuery UI, Pascal, Objective-C 2.0.

Relational Database Management Systems: Microsoft SQL Server 2019 and earlier versions, Azure SQL, PostgreSQL, MySQL/MariaDB, Sybase ASE (on Linux and Windows), Oracle Database 10g, and 11g (Windows platforms, and Linux). Experienced with SQL Server SSIS and SSRS.

Other Software or APIs: ADO.NET, EF Core, Entity Framework 6.20 and earlier, Language-Integrated Query (LINQ), ASP.NET Core MVC and earlier, ASP.NET Blazor (Server), ASP.NET Razor Pages, Win64/Win32 SDK, Gtk#, WCF, ASP.NET Web Services, ASP.NET Core Web API, ASP.NET WebForms, ISAPI, ODBC, WPF (using MVVM pattern) and Avalonia UI, WinForms, Xamarin Forms (for developing UWP, Android and iOS applications), COM using MFC and/or ATL. Can also configure/administer servers and clients of Software Configuration Management (SCM) systems to provide CI/CD DevOps with Git, GitLab-EE, Azure DevOps, Microsoft Team Foundation Server (TFS), Subversion (SVN), and Mercurial. Use IndigoRose SetupFactory, InstallShield as well as Jordan Russell's Inno Setup to create "logo compliant" setup routines and installation programs for Windows. Create and administer corporate NuGet repositories and automate NuGet packaging of libraries within .NET solutions and projects.

Operating Systems: Windows Server 2019 and earlier, Windows 11 and earlier, VMware ESXi 6.7 (with vSphere vCenter), CentOS Linux 7x, Debian 12, Ubuntu 22 LTS (both server and desktop), FreeNAS, TrueNAS (both CORE and SCALE), Mac OS X 12.7 and earlier, Apple's iOS.

Can install, configure, troubleshoot and administer a LAN/WAN using Microsoft Windows and/or Linux. Competent in the use of MS PowerShell/PowerShell Core, *NIX Bash Shell, and YAML scripting for the automation, maintenance and scheduling of system level tasks associated with software build systems, continuous integration and automated deployments (DevOps) pipelines. Knowledgeable of MS Active Directory, MS Entra ID (formerly Azure AD) and LDAP authentication at both System Administrator and Software Developer levels.

Possess a deep understanding of hardware implementation for desktop computers, servers, and workstations in a networking environment. This knowledge and experience also include connectivity matters such as network protocols, virtualization, LAN topologies, cabling, and the basics behind routing. Thoroughly knowledgeable in business applications including word-processing, database, spreadsheet, and computerized accounting systems.

Design and administration of training programs, selection and purchasing of software and hardware at a corporate level, write corporate policies, experienced in counseling personnel, generating and analyzing complex administrative reports. Perfectly bilingual in English and Spanish: read, write, and speech. Linguistic familiarity with Portuguese and Italian languages (lesser degree in French and German).

WORK EXPERIENCE

Present
Jun 2019

Information Technology Consultant at MFConsulting, (Self Employed) -- Provide customers with information technology education to assist in strategic planning and orient their purchasing decisions; help implement new technology specializing in open-source solutions and offer rapid on-site response to system outages.

Single handedly stood up the hardware and software of an on-premises data center of 30+ hosts (mixture of MS Windows Server, CentOS, Debian and Ubuntu Linux, as well as BSD UNIX) using VMware virtualization technology with hybrid cloud (Azure) capabilities. The data center was designed and implemented to provide three logical environments (development, test/quality assurance, and production) to primarily support software engineering operations. Migrated the original source control repository to an enterprise class Git repository (using GitLab on premise). The GitLab server was configured to provide private repositories that are available to authenticated team members via the Internet as well as the company's Intranet.

This resulting source control system was also customized to support bug tracking, creation and prioritization of product backlog items, support issues, and feature requests. This is also integrated to provide a continuous integration and constant delivery pipelines per project/repository, effectively delivering an automated DevOps experience that only requires development teams to merge into branches upon code reviews, as well as progression to the production environment upon tagging of the Master (protected) branch. The CI/CD pipeline is achieved using two stand-alone build agents (running Windows Server), that upon the triggering of a job in the pipeline (jobs are scripted in GitLab's YAML file), execute a collection of project specific PowerShell scripts (Build, Test, Publish and Deploy) in context with the environment (Dev, QA, and Prod). The process provides for Git semantic versioning, environment specific search/replace variable values and secrets, as well as generation of custom Nuspec files (if required), and/or Windows Installer/Setup program and packaging (depending on deployment target).

Re-write of the original MilDotCalc (2007 – 2010), a mil-radian calculator application to help range estimation originally released for Mac OS X (Objective-C), Gtk# (Mono) and WinForms (.NET FX), completed as a refresh for modern Mac OS X requirements and compatibility with Mac OS X 10.15. This re-write was done specifically on the Objective-C codebase and re-released on the Apple AppStore for Mac OS X.

Re-write iMilDotCalc, the mobile device friendly version of the before mentioned calculator app, performed using Xamarin Forms, which in turn, made possible the release of versions for Android, iOS, and MS UWP. This new version 1.5.1 of iMilDotCalc is now commercially available through Google Play, the Apple AppStore and the Microsoft MarketPlace.

Initial design and implementation of CasaFuerte, an integrated web-based home security system that intends to provide alarm/security event monitoring along with security camera video footage. The system is completely implemented in .NET and written in C#. It incorporates elements of semantic logging (implemented with Serilog and Seq), Transcoding security video footage into H.264 video streams and AAC audio, uses Azure AD for authentication, uses Web API 2/RESTful services for both database access and file system archives. In its first incarnation, CasaFuerte makes use of the EyezOn Envisalink EVL-4 IP Interface Module (IoT device). The Envisalink permits the very common, but legacy DSC and Honeywell security systems (predating 2002), to be integrated into a web based, remote controllable and home user administered system.

Re-write of MFConsulting's principal website (originally written as a static HTML 3.2 website). The site was redesigned to provide an adaptive and mobile 1st design and implementing model-view-controller (MVC) architecture with support of a data layer assisted by a lightweight object relational mapping (ORM). The site is hosted on a server running CentOS Linux, with a reverse-proxy fronted by NGINX. The web application is implemented with ASP.NET Core MVC 6.0, using data and domain layers encapsulated as .NET Standard 2.0 libraries packaged as NuGet packages. The styling of CSS 3 is facilitated using Bootstrap 5.x and jQuery 3.x.

Feb 2022
Oct 2020

Senior Software Developer at Alpha II, LLC. -- Program, test, debug, and documents programs on large-scale, complex projects. Analyze user specifications and requirements. Revise and update programs and documentation as required. Mentor and share both technical knowledge as well as best practices to software development, application support, and Business Intelligence staff.

As part of the Application Development team, was dedicated to supporting the software engineering needs of the company's newest product, Zero Balance Review (ZBR), a revenue recovery system. This expert system is a collection of services, applications and user interfaces that consume multi-tenant data warehouse and business analytics that offers recovery services for healthcare providers, hospitals, and health systems. Using sophisticated revenue intelligence platform, to identify underpayments, prioritize high-dollar opportunities, and engage healthcare providers in denial avoidance to increase payment accuracy and revenue.

As the lead developer for the system, I work in collaboration with subject matter experts (SMEs), Business Intelligence developers and database administrators to create 3 stand-alone Windows Services and an interactive rich client Windows desktop application for UI/UX.

Two of the three services were designed for constant processing and ingestion of X12 835 EDI Health Care Claim Advice files (Remit Claim Audit Service), or X12 837 Health Claim files (Zero Balance Review Service). Both services were completely written in .NET and featured high performance parallel processing as well as many asynchronous operations. All systems were designed with a Test 1st approach (test driven development), and using SOLID principles and Layered Design, to maximize separation of concerns and maintainability.

The third service (ZBR Use Case Service) was also a Windows Service is a specialized job scheduler and execution system. Also written in .NET, but this one was design to provide horizontal scaling through subscription and cooperative model that allowed multiple instances of the service to be run in as many independent computer systems as necessary, to achieve optimal performance and efficiencies. Here too, software engineering practices mentioned before were in effect.

SMEs were provided an internal interactive application that allowed them to change the status of identified actionable claims in accordance with Use Case groupings. Here, Windows Presentation Foundation was used for the UI/UX desktop application. This application was also engineered in accordance with SOLID, TDD and Layering practices. The Model View/ViewModel pattern was used here to facilitate Unit Tests, and its data layer was provided through a RESTfull API ASP.NET web application. The use of Web API was the solution I proposed to implement, to comply with a better centralized security model used at Alpha II

Sep 2020
Mar 2020

Consultant represented by TEKsystems, Inc. Fort Worth, Texas – Contracted by HealthEquity, Irving Texas from Mar 2020 to Sep 2020. The Contract was to augment the HealthEquity software development staff (specifically the unit that was

formerly known as WageWorks, which handled COBRA benefits management). I arrived as the development staff was undergoing a business software transformation from VB 6.0 Windows rich client desktop application and services to a Domain Driven Design .NET Core Web based software architecture using ASP.NET Core (3.1), EF Core, etc. The development team was also transitioning from a waterfall model for software delivery into a more modern implementation of Agile (SAFe) methodology.

During my short stint with the team, I prototyped what would become the first solution for the COBRA benefits management project that used the Agile SAFe cadence. Help trained and collaborated with 4 developers to guide them into the ASP.NET Core Web API (REST microservice) solution called *MemberPlanPaymentAllocation* service. This prototype provided the uninitiated team of developers to their first introduction to the principles of Domain Driven Design, Layered architecture, consumption of NuGet packages and .NET Core 3.1 SDK. Database CRUD operations in the service were done via Repository patterns implemented with EF Crore.

May 2019
Jun 2016

Senior Software Developer, member of the Product Engineering Team within Healthcare Payment Specialists (and later, after the 2018 acquisition by TransUnion Healthcare) – responsible for designing and developing full-stack green-field solutions as well as supporting existing platforms. Healthcare Payment Specialists (HPS), specializes in solutions for maximizing Medicare reimbursement to its customers. HPS' Software as a Service (SaaS) solution is integrated in its flagship product, Stingray. Stingray provides modules for Medicare Bad Debt, Medicare Disproportionate Share, Transfer DRG, Shadow Billing Compliance, and Uncompensated Care Analytics. From a software engineering industry standpoint, HPS solutions are almost completely implemented on a Microsoft technology stack. Security and the strictest adherence to data privacy through industry standards, regulation and compliance is first and foremost.

The software engineering team at HPS includes the Director of Software Development, a Solutions Architect, and six senior software engineers. All team members actively develop, maintain and support the myriads of software services and operational environments. All team members participate in sophisticated DevOps that provide constant integration and a software release pipeline that permits releases at the convenience and programmed schedule proposed by the product team. The software build and release infrastructure consist of an on-premises implementation of Microsoft TFS 2017 for tracking the product backlog items, software version control (with Git front end), and Build and Release management for supporting product release and deployments. The software development team works hand in hand with the members of the HPS product team which in turn is made up of the Director of Product, three senior business analysts, the Director of Quality Assurance (QA) and two QA staff members. The product and Software Development Life Cycle is carried out using Kanban Agile methodology.

While at HPS/TU Healthcare Fort Worth, I primarily work on the company's Operation Data Store system (ODS). ODS is an eventually consistent collection of microservices that communicate through a customized Enterprise Service Bus that is hosted on Microsoft Azure. The main purpose of the ODS services is to in-process all the customer's DataSet files (over 18 distinct types) that represent a medical facilities demographic patient encounter, payment adjustments, collection agency details, Medicare Payment Records etc. These files are ingested through a Secure FTP site (using SSH implemented through Cerberus FTP Server) and then

are split, standardized (scrubbed, validated and threshold reviewed), then loaded into the corresponding Facility Database (hosted by a massive Microsoft High Availability cluster SQL Server 2016) using custom SSIS packages that are invoked programmatically in a transactional fashion. The production SQL Server cluster mentioned before, holds an active set of over 9,000 databases. All the ODS individual services corresponds to a discrete operation (ODS.FileIngress, ODS.File service, ODS.FileSpliter, ODS.Standardizer, ODS.FacilityManagement, and so on). The architectural design of ODS is based on Domain Driven Design (DDD), Command Query Responsibility Segregation (CQRS), and pub/sub messaging implemented through an enterprise service bus. In addition, most of the ODS services also provide a RESTful API for products like Stingray to consume and interact with them. Security for Authentication and Authorization, be it intra-services or by user interaction is provided by an implementation of ASP.NET Core Identity Server that supports OWIN/OAuth and Active Directory users, groups and service accounts. In those services that expose a REST API endpoint, the implementation is achieved via ASP.NET Web API 2 or ASP.NET Core Web API. The CRUD operations against data layers that reside in relational databases, are normally abstracted using a repository pattern facilitated by the micro ORM Dapper, or in some instances, MS Entity Framework 6.x or EF Core. All software solutions satisfied the cross-cutting concern for process logging and tracing via a semantic logging design pattern, using a combination of the Serilog and SEQ libraries and SEQ Server.

May 2016
Feb 2015

Senior Developer, member of the Platform Team within DRN's Engineering Organization – responsible for developing solutions, maintaining and extend the multi-tenant, multi-product Cloud based DRN's flagship platform known as SmartCollections. Digital Recognition Network (DRN) is a Fort Worth, Texas based company that specializes in information services that manage data generated from its proprietary vehicle license plate reader (LPR) technologies. The Smart Collection solution consist of a foundational platform that is design using a Command/Query Responsibility Segregation (CQRS) pattern implemented in MS Azure Cloud using Pub/Sub message queuing in Azure Service Bus Cloud Services and using polyglot storage such as Azure Blob and Table storage as well as Azure SQL and Azure Document DB. The SmartCollection Platform is then organized as a collection of over 7 logical Domains (in the context of Domain Driven Design) that are rendered as loosely coupled microservices exposed through a unifying RESTful API implemented with ASP .NET Web API 2.0. In addition to Web API RESTful access, the DRN platform also offers an alternative SFTP interface that also permits platform access via secure shell file exchange for large volume customers. Each Domain in the platform implemented by a Common library that is written using Object Oriented practices that adhere to Single Responsibility Principle, Inversion of Control and culminate on an ExternalService library that is packaged via NuGet packaging. Then, a CQRS pattern domain solution is implemented that references and consumes the common library for the Command(s) and Event Handler(s). The common libraries abstract data access for the polyglot solution using Object Relational Mapping (ORM) to traditional database access or Azure SQL (using Entity Framework 6.x), and/or be the accessor to Azure's blob and table storage. CRUD operations are then implemented through a repository pattern that abstracts and unifies the disparate data sources. The development methodology for the engineering team at DRN uses Agile/Scrum for day-to-day operations and Atlassian's JIRA for bug and sprint tracking. Due to limited staff positions in DRN's IT organization, all top 3 of the senior developers were often call upon to perform additional duties as, DBA, Dev Ops and often product support.

Jul 2014 – Oct 2013

Solutions Architect for the Custom Development Solution Center (CDSC) at Bell Helicopter Fort Worth, Texas (a Textron Company) – responsible for delivering application/system solutions to the business in the desired timeframe. Solutions normally consisted of application integrations to the enterprise systems (e.g., SAP). Work with necessary teams to deliver cost effective, scalable solutions from design through build and deployment. Work with IT leadership to provide both strategic and tactical strategies for custom solution development. As Solution Architect, I mentored, collaborated, and often reviewed the work of 6 software developers (permanent staff), as well as 4 software development contractors (performing extended contracts on site) at the Bell Helicopter Head Quarters in Hurst, Texas. Technical liaison for the Textron India Private Limited (TIPL) in India (a staff of over 6 dedicated .NET developers). The partnership with TIPL called for the CDSC Solutions Architect to be the technical interviewer during the talent acquisition of that group as well as for the CDSC's permanent employees, contractors and Interns. Technical point of contact and point person to asses, prototype and develop the CDSC software development technologies, methodologies and practices. This included programming languages, Integrated Development Environments, third party tools/libraries and frameworks, source control repositories, and the testing and implementation of new servers that made part of Bell's Development, Testing and Production environment. Devised and administered training to the 10+ development staff on Bell specific implementations of coding techniques, standards for Web Development, Authentication, Authorization, database utilization, Service Oriented Architecture, software design patterns and practices. The CDSC supported over 67 production .NET software applications use in the support of the Bell Helicopter aircraft manufacturing and associated operations.

Oct 2013 – Feb 2012

Web Developer Contractor represented by TEKsystems, Inc. Hurst, Texas – Contracted by Bell Helicopter, Texas from Feb 2012 to Oct 2013. Selected to complete web-based applications that supported the U.S. Defense Department Item Unique Identification (IUID) program – a federal compliance requisite for defense manufacturers. There was a collection of three applications all written in C# of which one was an ASP.NET WebForms and the other was an ASP.NET MVC 3 application. Additionally, there were also console executable assemblies that ran perpetually in support of the IUID web applications. The IUID software solutions use Oracle Database 10g for the database backend and consumed IBM Websphere MQ messages for assured delivery and communications. All systems at Bell Helicopter used a .NET WCF service for authentication that abstracted LDAP identity management (originally), and later Active Directory Lightweight Directory Services (AD LDS). All these applications and systems were completed and put into production at least 3 months ahead of the original projected schedule. Headed the technical efforts for the transformation and conversion of over 12 legacy mainframe applications and utilities from computer languages like COBOL, PL1 and FORTRAN, into modern ASP.NET MVC applications written in C#.

Jan 2012 – Aug 2011

Web Developer Contractor represented by TEKsystems, Inc. Hurst, Texas – Contracted by World Wide Analytics of Fort Worth, Texas from Aug 2011 to Feb 2012. Initially work maintaining an existing code base for a web-based payday loan lending software written using ASP.NET 4.0 WebForms and architected using domain driven design (DDD) and service-oriented architecture (SOA). The service aspects were componentized with Windows Communication Foundation (WCF). After the initial three months of the contract was promoted to a member of the development team that was responsible for re-writing the application. The new application was written using ASP.NET MVC 3, JQuery and NServiceBus. The

development team was composed of ten developers using Agile/Scrum methodology. Contracted by Bell Helicopter of Fort Worth from Feb 2012 to Feb 2013. Assign to migrate existing mainframe applications associated with the manufacturing operations to a refactor collection of applications that are web based and capitalize on ASP.NET MVC 3 architecture.

Aug 2012
Apr 2010

Ground Combat Skills Instructor/Fire Team Leader at United States Air Force– Provide US Air Force Security Force members deploying to Iraq, Afghanistan and other Gulf States with the combat skills needed as prescribed by the US Air Force Security Forces Center.

While on active duty, wrote a cross platform electronic exam administration and content management system called SF Tester. This computer application was written using C# and the NET Framework and runs on Windows, Linux and Mac OS X. Also wrote various versions of a mil calculation formula application used for range estimation deployed on Windows Mobile phones (MilDotCalc), Apple computers running Mac OSX (Objective-C and Cocoa) and iPhones/iPads (iMilDotCalc). The Windows mobile version was written in C# and relies on .NET Compact Framework. The iOS (iPhone) version was written using Objective-C and the iPhone SDK. These applications are currently sold at the Microsoft Marketplace (App Hub), the Mac App Store, and the iTunes App Store.

Apr 2010
Aug 2005

Information Technology Consultant Self Employed – Provide customers with Information Technology education to assist in strategic planning orient their purchasing decisions; help implement new technology specializing in Open-Source solutions and offer rapid on-site response to system outages. Some of the jobs performed for customers include:

Instructed the Novell corporation on how to create and maintain the Mono Combined Installer for Windows to assist in their effort to take over the creation and deployment of subsequent releases of the installer package. This installer system was of my original design and had been the Windows Installer package that was provided at the official Mono project downloads page for over seven of Mono's releases. The creation of the Mono Combined Installer for Windows involves the use and knowledge of C#, C/C++, PascalScript and the Inno Setup installer creation toolkit.

Modify a Windows Forms (.NET Framework) rich client application and its associated components for Lockheed-Martin/Novell, King of Prussia, PA, used to monitor and re-task individual satellites within the US GPS satellite constellation for it to run on a SUSE Linux Enterprise Linux server. The integration project called for some of the user interface components to be re-arranged or substituted for the best presentation and portability between Microsoft .NET Framework Runtime while in Windows and Mono’s implementation of WinForms while on UNIX/Linux.

Migrate an ASP.NET web application for Sevis Systems, Plano TX, that served as a web front end to manage, administrate and report on hardware telecommunication switches of their own manufacturing hosted on a Windows 2003 Server and a data tier provided by MS SQL Server 2005 to a Mono (open-source .NET implementation) ASP.NET web application hosted by CentOS Linux server running Apache/Mod_Mono and a database tier using MySQL. The migration project called for minimal rewrite of the .NET web interface code, some adjustments on the database stored procedures and the .NET code that called on them and a complete document on how to install and configure the Mono runtime environment on a CentOS server.

Aug 2005
Dec 2002

Software Engineer at HEALTHvision, Inc. Irving Texas – Perform new development, devise systems architecture and strategies as well as maintenance of the existing code base. Member of the .NET Development committee in HEALTHvision. This last entity is responsible for detailing and prescribe the standard operating procedures that guide all product development life cycle as it relates to .NET technologies.

Designed and implemented an innovative State Management System that permits among other things, the exchange of Application and Session object contents between Microsoft ASP and ASP.NET web applications. The components of this system were written in C# for the .NET parts and C++ ATL for the COM objects. This system is modeled after the Model View Controller paradigm.

Authored various projects that use ASP.NET Web Forms and ADO.NET. Created a Web Service in C# used for purposes of authentication in a fashion like MS Passport.

Have also created various Windows Forms applications used for utilitarian purposes that range from GDI+ graphic image generation to Visual Source Safe source code file reporting and workflow. Proactively researching the capabilities and compatibility issues of Mono -- an Open-Source implementation of the .NET Framework.

Author of the HV Remote Print Server (HVRPS). A server system that can be installed over the web at a geographically dispersed practice or clinic that enhances the printing capabilities for the company's web-based services. The system enables customers running the browser based clinical applications from a hand-held computer to print on demand to printers managed by the designated Remote Print Server. The HVRPS is an example of a Service Oriented Architecture (SOA) application. It uses a low-level C/C++ library that permits the custom management of the Windows print spooler. The rest of the C# written components access the library through the Platform Invocation (P/Invoke) mechanisms standard in the .NET Framework. Some of the components of the system use a Postscript emulator and translator layer, ASP .NET Web Services, Mono's Web Server (XSP) and an installer written with InnoSetup. All the HVRPS can be built completely from the command-line through the use of nmake Makefiles that complement the multiple Visual Studio .NET projects and solutions and the creation of the final installation package.

Nov 2002
Mar 2000

Software Engineering Specialist at RIVA Technologies, Inc. Fort Worth Texas - Responsible for the creation, analysis and implementation of the company's software product offerings. Assist the Sales and Marketing personnel to support key accounts and render technical support when necessary.

Senior Engineer for RIVA's Imperis. Imperis (known as McGraw Hill's ATLAS) is a Microsoft Office 2000 training system to assist in the preparation of individuals seeking Microsoft Office User Specialist (MOUS) certification. Architect of the embedded database used to contain automation scripts, student results, performance statistics and the HTML that is presented in the application's main views.

Designer and sole implementer of a XML document reading mechanism use to dynamically populate the database at runtime during online operation. Designer and implementer of COM objects containing supporting functions invoked during script execution. The application uses MFC, ATL, ODBC, WinInet functions, HTML, XML, and VBScript. Trained senior developers in the use of ODBC record sets and database connection reuse. Migrated the original OLE Document storage mechanism to the more flexible embedded database system. Redesigned the

product to provide two modes of operation: stand alone or on-line.

Sole architect, principal developer for DbFeeder. The Imperis content authoring and management system. Designed as an integrated development environment for multiple users working at unison with the Perforce Software Configuration Management system (SCM). The application uses MFC, Objective Toolkit, ATL, Perforce and XML. During this project, developed a C++ API to perform check-out/check-in operations between an application and the Perforce SCM. Redesigned the automated build process for Imperis/ATLAS and the InstallShield setup and installation routine cutting down the delivery process time in more than half.

Database Administrator and Programmer for the Oracle 8i and SQL Server databases used in eTest, the company's flagship product. eTest is a web-based, online testing system offering multiple levels of access and functionality for students, instructors, and administrators. The eTest product is a n-tier system that accomplishes its objectives using J2EE, XML, XSL and its data source may reside on a fully SQL 92 compliant RDBMS for which there are Type 4 JDBC drivers. The original back-end database was designed and modeled using ER Win on Oracle 8i. In charge of testing against 8i versions running on Linux, Solaris and Windows 2000. Converted the database to SQL Server 2000. The conversion was so successful, those only 8 lines of code changes were necessary for the Data Access Beans. Using Java (JFC, JDBC and JDOM), created graphical user interface tool to provide rich client access from Unix based computers to SQL Server, so database administration tasks could be performed remotely.

Devised a training program for four developers on the use of Visual Studio .NET integrated development environment and an introduction to the C# language and the .NET Framework. As a result, the trainees quickly became capable of building WinForms based applications that can access database content and output XML documents without further guidance or assistance.

Mar 2000
Sep 1999

System Engineer IV at RealPage, Inc. Carrollton Texas – Responsible for defining business problems through daily interactions with customers. Responsible for project planning, estimating, and management of small to medium size projects. Lead other team members in day-to-day activities.

Technical lead and architect of the Advance Technology Group's test platform Server farm. All of the eight servers were configured with Windows 2000 Advance Server and were part of an Active Directory domain. These systems were use to host such server applications as Site Server 3.0, Internet Information Server 5.0, SQL Server 7.0 Enterprise edition and required supporting services such as Dynamic Domain Name System (DDNS) and Microsoft Message Queuing Services.

Jul 1999
Jan 1998

Senior Programmer/Analyst at Cellular ONE of Puerto Rico – Responsible for the creation, analysis and implementation of enterprise application software. Supervise and mentor junior programming staff members and the company's webmaster. Contributor in the creation of the *"Cellular One Solution Framework"* used to organize, manage and track the elaboration of the company's software development requests.

Designed an ISAPI based web report automation and administration system used for the decision support reports provided in the Cellular ONE intranet. This system produces HTML reports and statistics from all RDBMS systems that compose the Cellular ONE data warehouse. All reports that require additional input parameters have web-based entry forms automatically generated (including supporting JavaScript code) by the system. Users of this system are only required to have SQL

syntax knowledge for publishing reports. Completely written using MS SQL Server, Visual C++, Visual J++ (for Java applets), ODBC, and ActiveX controls.

Acted as program manager and developer for the final testing and first release of the Repair Center Tracking System (RCTS). Directly responsible for adapting the application's client front end to run in a MS Windows NT Terminal Server environment. Supervised all subsequent release modifications and adaptations performed by development team members. The RCTS is an integrated client/server application with a graphical user interface written in Visual Basic and a back-end database founded in MS SQL Server that is distributed across the Cellular ONE's WAN. This system tracks the customer equipment (mobile phones, pagers, etc.) repair activity.

Performed the original implementation/migration from the Lotus cc:Mail electronic messaging system to MS Exchange 5.5. Train the IT Operations staff on administration and support of the system. Author and organizer of the "Train the Trainer" seminars on the MS Outlook for Windows client and the Outlook Web client. Also, re-wrote the existing API DLL used by Cellular ONE programmers to simplify the e-mail enabling of applications from Vendor Independent Messaging (VIM) API to MAPI.

Jan 1998
Nov 1997

Consultant at Microsoft Caribbean – Assist Microsoft Consulting Services clients in building mission-critical systems to run on networks of workstations and servers. Responsible for interviewing clients and capturing specific client requirements in concise format. Design and write code for small systems. Build relationships with client technical and project management personnel. Assist in building strong relationships with client management. Work together with field sales personnel to support account strategy and control objectives.

Author a project plan for the "Corporacion de Empresas de Adiestramiento y Trabajo" (CEAT) Electronic Messaging Project. Directly contributed to the completion of the final documentation of the electronic messaging architecture of the Government of Puerto Rico's PRStar.Net (one of the engagement contract deliverables).

Nov 1997
Aug 1997

Information Technology Consultant Self Employed – Provide customers with Information Technology education to assist in strategic planning, orient their purchasing decisions, help implement new technology and offer rapid on-site response to system outages. Some of the jobs performed for customers include:

Installation and testing of Vinca Corp. Standby Server software to provide mirroring between two Novell NetWare 3.12 servers, LAN topology revisions and Ethernet cabling rewiring of new Hubs and Switches, at *Wesley Jessen (Puerto Rico).*

Design and implementation of computer systems at International Hospitality Enterprises. The project included software (MS BackOffice Small Business Server) and hardware selection for server. Architect of the 10 Base-T LAN for 3 workstations and the capability of remote connection for mobile users. Advisor for all logistics coordination between hardware/software vendors. The main use of this system was to provide an internet connection for the users of the LAN and exploit the GroupWare capabilities offered by the Exchange/Outlook combination (shared contacts, calendar, e-mail and FAX). Responsible for the user education of Network administration and daily operations, use of MS Office applications in a shared file and printing services environment.

Aug 1997 – May 1997: MIS Supervisor at Wesley Jessen, (Puerto Rico), Inc.– Responsible for the recruitment, supervision, training and support of the application developer staff (3 members) and the operation staff (2 members). Began the re engineering and restructuring of the MIS department at Wesley Jessen (Puerto Rico), Inc. This included the addition of NT server to the LAN, switch the Gupta/SQL Windows development to MS Visual Studio/MS SQL Server, and the migration of 16bit desktop operating system to 32bit. Revise the standard operating procedures for the MIS operations. Trained the MIS operators in the use of HP-UX system administration utilities to better support the plant's HP 9000 system.

Apr 1997 – Apr 1994: Programmer/Analyst at Cellular ONE of Puerto Rico- Author of the daily automated mechanism that feeds the Cellular ONE's Microsoft SQL Server based Data Warehouse from an RDB database that resides in a VAX system. The communication between these dissimilar platforms required mastery of FTP, software compression/decompression algorithms, MS SQL Server bulk copy functions, and file system level knowledge of both VMS and Windows NTFS. The system was designed using Visual C++ and MFC.

Wrote the Cellular ONE's "Software and Computer System Usage Policy" and pioneered the Anti-Software Piracy program. As a result of this effort, a sophisticated network control system was instituted. This included hardware inventory, software inventory/metering and LAN traffic statistics reporting.

In charge of the installation, configuration and implementation details for a Document Imaging filing and retrieval system that archives the Customer Invoices, using Computer Output to Laserdisc (COLD) technology. This System uses an optical disk Juke Box Server, a SQL Server, and a report Processing/Filling Workstation. The Software that powers the system is Optika's FilePower version 4.3. Created a Win32 application to preprocess the Cellular ONE bill images using Visual C++ and MFC.

Installed, configured and implemented the electronic messaging system used in the Cellular ONE's WAN. The Lotus cc:Mail configuration included routing between various Post Offices, creation of all of the User Groups, Bulletin Boards, Individual mailboxes, Dial-In access for field users, and a Pager Gateway. Also created DLLs that relied on VIM to give internally designed applications messaging capabilities and a true 32-bit client for Windows NT workstation Users.

Developed an interactive multimedia touch screen-based kiosk application that detailed Cellular ONE's history, product line and services. This system was deployed and used on over five locations across Puerto Rico and the US Virgin Islands. Asymetrix's Multimedia ToolBook was used for the software development.

Feb 1994 – Aug 1992

Computer Laboratory Coordinator at Instituto de Educacion Universal, Puerto Rico- Installed a unique 24 Node Multimedia computer network for the development of college students' basic skills at the College division of the IEU. Also designed and implemented three geographically separated 90 node computer networks that were the backbone of the computer laboratories at each of the three IEU Campuses. Trained the entire faculty and other related personnel in the use, administration and maintenance of the institution's network.

Technical Instructor – Responsible for the teaching of a 30-student class on the Microcomputer Operator course. Some of the classes in that curriculum included: Business spreadsheets, Data Bases, Word Processing and Business Presentations. One of the five members of the Curriculum Revision Committee for the Microcomputer Specialist and the Computerized Accounting courses of the IEU.

OPEN SOUIRCE INVOLVEMENT AND CONTRIBUTIONS

Contributor to the Mono project. The Mono project is an Open-Source implementation of the .NET Framework, based on published ECMA standards. Community participation includes assistance of both developers and end users over Mono's IRC channels and mailing lists as well as public speaking appearances at User Groups and conferences. Original author and maintainer of:

Prj2make, a tool that permits the creation of make files (both gmake and nmake style) from Visual Studio .NET, SharpDevelop and MonoDevelop project and solution files. Prj2make began as a stand-alone utility with a project website at Novell Forge but now has been incorporated in the suite of tools that are integral and distributed with every release of the Mono Framework.

Mono Combined Installer for Windows, an installation package that includes all of Mono's software development tools and runtime framework, XSP (Mono's ASP.NET compatible web server), Gtk# development and runtime libraries as well as GTK+ development and runtime libraries. This single installation routine allows a "one-stop" installation and configuration of the user's environment while permitting parallel installations of multiple releases. The Mono Combined Installer for Windows can augment a Cygwin installation but does not depend on it or the Microsoft .NET Framework to be present to deliver it's full functionality.

Gtk# Installer for the .NET Framework SDK and Runtime, these two installers supplement the MS .NET Framework 1.1 to give applications written for Gtk# the ability to run on systems without Mono but that have the .NET Framework installed. Both installers include GTK+ runtime files and in the SDK version, it also includes development libraries and tools like Glade (a GTK+ UI designer). If the SDK installer detects the presence of Visual Studio .NET 2003 during runtime, it will also install and integrate with Visual Studio providing project templates for Gtk# and Glade# applications both in VB.NET and C#.

VSPrj2Make, a Visual Studio .NET 2003 add-in that helps Mono developers create, test and deploy their applications from within Visual Studio. This add-in was created in accordance with the Microsoft Visual Studio Add-in creation guidelines while taking advantage of both locally installed versions of the Mono Combined Installer for Windows and Gtk# Installer for .NET Framework SDK.

TRAINING, CERTIFICATIONS AND PROFESSIONAL MEMBERSHIPS

Apache Hadoop 2.0: Data Analysis with the Hortonworks Data Platform using Pig and Hive (Course given by Hortonworks University), In-depth .NET Framework (Course given by Jeffrey Richter of Wintellect). System Administration for Microsoft SQL Server 7.0, Microsoft Solutions Framework version 2.0, US Air Force Security Police Academy, were principles of both physical and industrial security are taught. Non-Commissioned Officer Leadership School, which specializes in Advanced Counseling Techniques, Communication Skills, Management, and Human Relations.

Microsoft Certified Solutions Developer (MCSD): Web Applications, Microsoft Certified Solution Developer: Visual Studio 6.0, and Microsoft Specialist: Programming in C# Specialist. Member of the Microsoft Partner Program. Active Member of the Apple Developer Program for iOS and Mac OS X.

EDUCATION

Bachelor's degree in Computer Science with the University of Puerto Rico (UPR) in Progress. Currently at sixty-six college credit hours with a GPA of 3.68 in Mayor and an overall GPA of 2.8 as of May 1999.

Diploma of Microcomputer Operator (over 1,200 class hours) given by the Instituto de Educación Universal (IEU) accredited by the NATTS *(National Association of Trade and Technical Schools)*, Honor Graduate in 1992.

PERSONAL DATA

Awarded SECRET security clearance (date of investigation: Dec 07, 2006). Awarded TOP SECRET security clearance by the Department of Defense back in 1989. Recipient of the US Air Force Meritorious Service Medal, Department of Defense's Joint Service Commendation Medal and four times awarded the US Air Force Achievement Medal. Enjoy challenging tasks involving important results and imaginative solutions.