# MARK KENNEDY

## Master of Software Engineering Doctoral Student, Doctor of Engineering

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#### EXPERIENCE SUMMARY

Aingeal Bear, Inc, Southern California12/02 to PresentAllegis Group, Inc., Kansas City MO, Southern California01/96 to 12/02Computer Horizons Corporation, Inc. Kansas City MO1/95 to 01/96United States Marine Corp (Active Duty), Twentynine Palms CA, Kansas City MO10/89 to 01/95The Pennsylvania State University, University Park PA (BS/MSE)

# PROFESSIONAL EXPERIENCE

#### Senior Technical Manager, Project Manager, Technical Lead, Programming Consultant

Responsibilities consist of application development as **Programming Consultant**, project management and technical leadership as an **Architect** and **Technical Lead** and **Project Manager** and management of consultants as a **Senior Technical Manager**. Each of these areas overlapped. Assignments included clients such as Aveva/Schneider Electric, iHeartMedia/Clear Channel Communications, DeskSite, PIMCO, Restaurants on the Run, ShoreCliff, MediaSpan, The Toro Company, The United States Marine Corps, PhotoCardUSA, TeleMedia, County of Riverside, Alta Vista, CTX International, Walt Disney Company, GE Capital, EDS and Associated Wholesale Grocers.

Technical Management responsibilities include mentoring and coordinating the work of up to 19 consultants on a particular client site and 30+ across multiple cities, performing annual reviews, counseling, training and overall career development. Enforced 100% compliance with our corporate training program for staff consultants in Southern California. Acted as the front-line point of contact for our client managers, consultants and sales staff, buffering communication between the three sides in the Western Regional markets. Performed local and national technical interviews. Screened potential consultants for addition to our national technical interviewing team and our Consultant Management Program. Attended sales calls with new and existing clients. Building Statements Of Work (SOW) for various project proposals. Maintained monthly contact with corporate office and Vice-President of Consultant Programs regarding status of technical management in Western Region. Interfaced with local and corporate administrative staff in resolving personnel and administrative issues. Participate in various corporate initiatives with executive management.

Hands-on technical experience involved skill areas documented above and outlined further below:

### Aveva/Schneider Electric, Lake Forest CA

08/19 - Present

Senior Software Engineer

Development of Custom Extensions for Azure DevOps (ADO) using Node, TypeScript, React and PowerShell. Application development using ASP.NET Core, Razor, Blazor and MVC. Development and maintenance of CI/CD pipelines using YAML scripts, exporting process templates, managing repositories in ADO. Modification of Work Items with custom developed controls and Hub extensions. Consume ADO REST APIs, VSS SDK. Manage configuration info via Extension Data Storage. Database and Stored Procedure tuning in Azure AQL.

### iHeartMedia, Orange County CA

02/17 - 7/19

Senior Software Engineer

Development of Radio Media advertising software utilizing C#.NET (Visual Studio 2003 and 2005) and SQL Server with the AGILE Methodology in a SCRUM Process environment. Software functionality involved Radio commercial advertising. Key vertical market concepts include subjects such as Ordered/Booked Spots, Avails, Occasions, Separations, Bookends, etc. Technical work was performed in a succession of 2, 3 or 4 week "Sprints" by teams consisting of C# developers, Quality Analysts and a Business Analyst. Database development and maintenance was the direct responsibility of the developers overseen by a single Database Designer operating as a cross-team resource. Effort involved UI design and development using standard Visual Studio.NET objects as well as the DevExpress UI toolset. Backend design and development involved a multi-tiered approach utilizing Common, Data, Business and Presentation Layers, respectively. SQL Server 2016 utilized for data storage and retrieval as well as webservices. C# source set change control managed through Team Foundation Server.

## DeskSite (QDOS), Irvine CA

04/14 - 1/17

Architect/Senior Developer

Lead a team of 5 (plus offshore resources) in re-architecting the entire codebase from the SQL Server Backed (porting to Azure), Broadcast Content Delivery, Webservice to WCF re-architecture, client side windows services and WinForms to WPF conversion. All redevelopment involved conversion of VB.NET to C#. I also interfaced with the CEO and CMO on all functional requirements, interfaced with vendors, managed QA efforts and developed internal resources' skillsets. Areas of technology utilized include SQL Server, Azure SQL, Azure Webservices, Azure Media Services for transcoding video content, WCF, Windows Services, C# and VB.NET WinForms, WPF, TFS, Subversion, Jira, Telerik Suite of controls for WinForms and WPF

## Pacific Investment Management Company (PIMCO), Newport Beach CA

04/10 - 04/14

Silverlight Developer

Designed and developed Silverlight applications using C# for Portfolio Managers. Applications included Corporate Bond Calculator, Whole Loan Pricing, Bloomberg real-time data pulls, Credit Analytics, Mortgage Reports, and Mortgage Surveillance. Applications utilized WCF for data access connecting to Sybase and SQL Server back-ends. Development tools included Expression Blend, Visual Studio 2010 and 2012, Telerik RadControls for Silverlight, SQL Server Management Studio, Embarcadero Rapid SQL XE.

### Restaurants on the Run (ROTR), Aliso Viejo CA

11/09 - 08/10

.NET Architect

Maintained ASP.NET sites for internal employees and public customers via the rotr.com website. Work involved complete rewrite of external site allowing access via non IE browsers such as Chrome, Firefox and Safari. Work also involved managing off-shore development team in Sri Lanka. Re-architected much of the backend SQL Server and optimized the majority of the data access queries by converting to stored procedures and optimizing logic.

### ShoreCliff, Inc./Play N Trade, Newport Beach CA

06/08 - 11/09

.NET Architect

Re-architected the Point of Sale (POS) application used in 250 franchises. Efforts included refactoring to a layered approach with Data Access Layer, Business Objects Layer and Aspect-Oriented Common Layer. Converted all SQL access from static queries in-line queries to stored procedures. Designed a Database build process. Also, rebuilt an Order Processing System for placing EDI orders for video game titles made by the franchisees and processed by corporate office.

.NET Developer

Development involved refactoring the front, middle and backend tiers of a C# ASP.NET application designed to produce and maintain web sites for newspapers and radio stations, with emphasis on the backend and middle layers. Efforts included refactoring to a layered approach with Data Access Layer, Business Objects Layer and Aspect-Oriented Common Layer. Converted all SQL access from static queries to 121 new Stored Procedures. Replaced 45 SqlDataSource objects using static SQL to ObjectDataSources referencing new Business Layer objects. Refactored all SQL object references (procedure names, parameters, etc.) to Common Layer constants. Scripted Database objects as individual scripts to provide a re-runnable build process for both clean seed and updates. Developed build engine to load all SQL DB scripts and build rolled up Master Scripts.

Architected and built Search Engine Friendly URL functionality utilizing the .NET Integrated Pipeline of IIS7 on a Windows 2008 platform utilizing a Managed Module implementing the IHttpModule interface.

Additional efforts included developing a uniform system-wide approach to Error Logging, User activity logging, debugging "echo" statements and error message displays. Also developed a Thumbnail Image Generation Engine that included logic to produce images and thumbnails from PDF images.

## United State Marine Corp Reserve, Seal Beach CA

11/07 - 06/14

Retired Master Sergeant / Communications Chief

Served as Instructor with the G6 in Twentynine Palms, Battalion Communications Chief for 5th Battalion 14th Marines artillery unit. Coordinated training of Communications Platoon Marines in the setup and configuration of the Combat Operations Center (COC). Interfaced with civilian contractors in troubleshooting COC both during Home Training Center (HTC) drills and Battalion (-) live fire exercise. Served as interim Communications Officer reporting S-6 status to battalion commander during HTC drills. Worked with Inspector-Instructor (I&I) staff in Communications Chief knowledge transfer. Coordinated access of vendor-provided hands-on training for maintenance and troubleshooting of COC during annual Active Training (AT) with contractors and new Comm Officer.

### Clear Channel, Orange County CA

04/05 to 06/07

.NET Developer, Technical Lead

Development of Radio Media advertising software utilizing C#.NET (Visual Studio 2003 and 2005) and SQL Server with the AGILE Methodology in a SCRUM Process environment. Software functionality involved Radio commercial advertising. This arena involves managing radio "inventory", advertising orders and an order booking process. Key vertical market concepts include subjects such as Ordered/Booked Spots, Avails, Occasions, Separations, Bookends, etc. Technical work was performed in a succession of 2, 3 or 4 week "Sprints" by teams consisting of C# developers, Quality Analysts and a Business Analyst. Database development and maintenance was the direct responsibility of the developers overseen by a single Database Designer operating as a cross-team resource. Effort involved UI design and development using standard Visual Studio.NET objects as well as the DevExpress UI toolset. Backend design and development involved a multi-tiered approach utilizing Common, Data, Business and Presentation Layers, respectively. SQL Server 2000/2005 and Microsoft CRM were utilized for data storage and retrieval as well as webservices. C# source set change control managed through Visual SourceSafe and SourceGear's Vault. Change control for SQL Server stored procedures, schema, DDL, DML and other scripts were also maintained via SourceSafe. Draco.NET was utilized for both the application and database build processes. The SQL scripts needed for the database build process were identified via .LST files included in the applications respective Solutions.

## United States Marine Corps Reserve, Twentynine Palms CA

06/03 to 10/07

Mobilization Staff NCOIC

Served as Mobilization Staff NCO in Charge. Worked with Colonel responsible for Mobilization Logistics in order to prepare for future mobilizations of reserve Marines in support of Operations Enduring Freedom and Iraqi Freedom.

### **Toro Irrigation Division**, Inland Empire CA

Systems Analyst/Architect/.NET Developer

Development and maintenance of Delphi applications accessing InterBase and Firebird databases involving Flow Management and Irrigation Control. Internationalized a collection of nine desktop applications written in VB/VB.NET consisting of 97 Forms and 19 Modules.

Developed Proof Of Concept application in C#. Work involved converting existing Evapotranspiration (ET) calculation functionality written in C++ to C#. Proof Of Concept was intended to demonstrate ability of beta .NET version of TeeChart mapping tool to successfully plot values derived from input files in a graphical representation of ET. As there are many standard algorithms for calculating ET, this tool was designed to retrieve whatever ET-calculating Assemblies may be found in the GAC to offer as alternatives to the user via a graphical interface.

Performed systems analysis of Web Services vs. .NET Remoting for cross-platform (desktop and PDA/PocketPC) application under development. Concerns involved overhead, bandwidth, stability and security. Developed Proof Of Concept application demonstrating findings. Application demonstrated techniques of data access that returned to a client application SQL Recordsets as well as simple scalar return values, via ADO.NET. The user was given the option of retrieving the data through the use of Web Services or .NET Remote objects. When selecting Remote objects, the user could choose Client-Activation, SingleCall Server-Activation, Singleton Server-Activated, Marshalling By-Reference or By-Value where applicable. Application was developed as a "code-repository" for use by future development teams.

Performed product analysis of vector graphic mapping offering from VectorDraw. Analysis determined whether VectorDraw performed cross platform within a .NET client application and whether a client application could interact with individual vector objects or merely with the VectorDraw container application.

## Marine Corps Air Ground Task Force Training Command, Twentynine Palms CA

07/01 to 12/02

Systems Analyst/Architect/Web Developer

Performed systems architectural analysis of intranet based information retrieval and management tool. Communications and Data Directorate was inheriting site designed and developed by an administrative staff of five. Developers had no formal schooling but succeeded in developing, over a period of several years, a load-balanced IIS-based Intranet application in ASP accessing very large SQL Server 2000 databases utilizing stored procedures and populated with extracts from Class 1 mainframe systems via DTS. The Communications and Data Director was concerned about "the other shoe" that may drop after the Directorate agreed to take responsibility for the site. Effort included creating documentation for the benefit of end users, developers and the Executive level. Recommendations made to Director regarding future development, maintenance, scaling, .NET conversion and use of structure development methodologies.

Performed systems analysis of existing manual and semi-automated processes for the Marine Corps Communications and Electronics School. This effort involved interviewing Subject Matter Experts across multiple functional areas to document existing processes and make formal recommendation to the school's Commanding Officer regarding the best approach to fully automating all areas of resource management for the organization. This effort was designed to prepare the school for the future development of this Resource Management System. The scope of this effort involved interviewing 28 Subject Matter Experts across 21 functional areas within the 4 separate schools located within 14 buildings throughout the base to document the process flow of 36 disparate data sources currently maintained in 15 storage formats. The Direct Emulation approach was utilized with a projection of a Software Development Lifecycle approach for the design, development and implementation of the future solution. Tools used for this project were MS Project and Visio.

Prior to the above project, performed analysis and design of modifications needed to a reporting system currently developed in Cold Fusion but not functioning properly. Analysis involved determining functional requirements from existing Subject Matter Experts, studying current configuration of NT servers including SQL 7 database server and IIS web server running the Cold Fusion service and outlining conversion requirements of Cold Fusion source to ASP. Project continued with hands-on development of application in converting Cold Fusion source to ASP, converting static queries to stored procedures, modifying existing application state functionality to add scalability, automating existing manual data load process to COM-based daemons and providing complete architectural documentation.

IT Architect

Architecting IT department from scratch. Single-handed effort involved: designing system overview; interfacing with owner/investors; installing 144 IDSL line; ordering desktop development machines; install of network access to DSL line; negotiating hosting of Web/SQL Servers and messaging with Portland hosting company; designing and building database architecture and development of stored procedures for server-side business logic, development of Visual Basic applications for maintenance of back-end data; migrating data from existing storage mechanism of MS Outlook using Visual Basic conversion routines; resolution of Domain Name conflicts with Network Solutions; and building initial static content web offering. All of this was accomplished in the first two weeks preparing for a projected Business-to-Business e-commerce contract between PhotoCardUSA and Office Depot involving EDI. At the two-week point, PhotoCardUSA investors got skittish waiting for the Office Depot contract signing and froze the project.

### Telemedia Development, LLC, Costa Mesa CA

08/00 to 01/01

Senior Web Developer

Initial assignment with TeleMedia Development involved modification of web-accessible reporting functionality developed in ASP primarily with VBScript server-side with JavaScript for client-side functionality. I wrote SQL Server stored procedures to replace existing static queries. I also corrected previous developer's coding errors to allow existing Intranet application administrative site to be served up as an Internet site (i.e. Netscape compatibility). Following this initial effort, I performed the requirement analysis and design of a dialer-based Internet billing system using MS Project and Visio. I then used this to design the OLTP database architecture and layout the web pages. I implemented these designs by coding ASP pages to invoke stored procedures I built in SQL Server 2000 to update and report on billing transactions. This effort included configuring and maintaining IIS web servers throughout the assignment.

### County Of Riverside, Riverside CA

07/00 to 07/00

Technical Consultant

Spent two weeks helping the County Of Riverside with several Access databases that were taking several hours to generate reports with inaccurate results. Repaired databases and documented specifications for long term resolution to their Access problems which was used by another consultant put in my place for the longer term Access work.

## Alta Vista/Shopping.com, Irvine CA

04/99 to 07/00

EDI Manager/Client-Server Application Developer

My assignment with Alta Vista/Shopping.com began as an EDI Manager; coordinating with DBAs and developers maintaining the back-end of an e-tailing store in conjunction with negotiating agreements for trading ANSI X12 EDI documents with EDI counterparts from 50 suppliers in determining EDI specifications. Further efforts involved determining database requirements and coordinating with other developers in building stored procedures and invoking them through both client server applications I wrote in Visual Basic and intranet applications I wrote in ASP. Additional effort involved development of B2C e-Commerce related applications to process the EDI data. This assignment then became totally development-related when the store was closed. Development efforts then consisted of creating Visual Basic applications connecting to SQL Server databases utilizing ADO and COM servers. Work involved building stored procedures as well as static queries via ADO. Applications were designed to process data feeds, error reporting, database maintenance, web site scraping and a variety of other B2B e-Commerce applications. Additional reporting performed with intranet applications developed with ASP using VBScript as well as Crystal Reports with Visual Basic.

#### Walt Disney Company, Anaheim CA

03/99 to 03/99

Technical Consultant

Spent two days helping Disney's merchandising department with an emergency fix to several Access databases that were crashing due to size.

## CTX International, City Of Industry CA, Compton CA

01/99 to 03/99

EDI Manager/Client-Server Application Developer

Assignment with CTX International included development of a Visual Basic EDI application reporting on EDI-related orders (850s) and ASNs (856s) produced by Harbinger's TLE, STX and ESRS software. This was done to meet the EDI OEM specifications as set forth by Compaq. This development involved linking to application data mapped from Harbinger's EDI package and reporting on it via a Crystal Reports mechanism built into an in-process (ActiveX) COM server and accessed by a standard Visual Basic MDIForm container application.

### GE Capital Mortgage, San Bernardino CA

06/98 to 12/98

Senior AS/400 Application Developer

Assignment with GE Capital included new development of AS/400 User Profile maintenance processes run from a single AS/400 to add, change and delete profiles from multiple target AS/400s. This consisted of the initial development of approximately 18 separate online and batch systems written in ILE CL and ILE COBOL utilizing DSPFs built with SDA, PRTFs built with RLU and PFs and LFs manually coded with SEU. Accessing the target boxes was done via the SBMRMTCMD utilizing Distributed Data Management (DDM) files and testing for success via receiving escape messages sent from target-side CLs. Interactive processing involved subfiles for prompting logic and a fully reusable, data-driven menu system. Project also involved the development of a batch process to run nightly and sort current User Profiles based on age as determined from Last Signon Date or Password Last Change Date and either disable, delete or report on based on the determined age of the profiles. Accessed the AS/400 via Netsoft Elite.

### Electronic Data Systems (EDS), Overland Park KS

01/96 to 06/98

Project Manager/Senior AS/400 Application Developer

Assignment began with routine batch and online COBOL development on the AS/400, progressed to Client Server development with Visual Basic and ended up a Project Management assignment for several projects. Work accomplished included managing a team of 5-7 developers in the customization of the billing invoice print order for EDS' IXPlus Long Distance Billing package. Also coordinated System Test and User Acceptance Test teams for IXPlus product releases. Development efforts (both hands-on and management) involved initial coding and maintenance of several hundred components of IXPlus. Skills required included DB2, ILE COBOL with embedded SQL, SQL/400 and ILE CL programming skills as well as various AS/400 utilities and MS Access and Visual Basic for down-side reporting. Lifecycle (SDLC) development included requirement analyses, business designs, technical designs, program specifications, coding, unit testing, system testing, user acceptance testing and post-mortem documentation. Individual programs developed consisted of up to 35,000 lines of code or more in size and included both batch COBOL and CL routines maintaining Physical and Logical files and online COBOL processes utilizing subfiles and prompting functionality. Data conversion routines developed with COBOL/DB2. Test data set up and verified using SQL/400. I also managed the Customer Data Load modification project for EDS on their IXPlus account. This project involved utilizing telephonybased EDI in receiving industry-standard CARE 960 formatted customer information and parsing fields for input into the DB2 tables of the IXPlus system. Further responsibilities involved interfacing with section heads, other project managers and technical leaders in determining the requirements for development of a VB application using Crystal Reports to report on hours logged by developers on their various projects. Logged hours were entered through a time management package called Carpe Diem and were stored in BTree Filer data files. This project involved exporting the BTree Filer data to comma-delimited files that were imported utilizing ODBC. This data was related via stored queries with NetWare UserId and text descriptions imported in a similar fashion for report detail lines.

### United States Marine Corps Reserve, Belton MO

09/95 to 07/97

Staff Sergeant/Training Staff NCOIC

Served as Training Chief and Assistant Information Systems Management Officer (AISMO) with the Seventh Force Automated Service Center (FASC) in the Marine Corps Reserve. This role consisted primarily of organizing computer-based training and scheduling school seats for our junior marines. Developed Visual Basic/Access application to store and retrieve personnel recall information and track the training plans for our marines. As acting ISMO during our two week active training, I was responsible for leading a team of twelve marines in maintaining the fiber-optic backbone for a Banyan Vines four server wide-area network. During down time on active training period, I developed and led Visual Basic and MS-Access training. Also involved in coordinating training to facilitate the migration from Banyan Vines to Windows NT with Lotus Notes and SmartSuite.

## **Computer Horizons Corporation, Inc.** Kansas City MO

12/94 to 01/96

Application Developer

Contracted for conversion of 56 batch reporting programs written in MARK IV to 48 COBOL II programs and modification of 25 existing MARKIV and COBOL programs for a wholesale grocery outlet. Work performed in a TSO (mainframe) environment using VSAM and QSAM files and utilities such as Expediter, File-Aid, IEBGENER, IDCAMS and OS/JCL under MVS. This work was performed via "dumb" terminals.

## Independent Programming Consultant, Independence MO

07/92 to 11/94

Application Developer

Independently contracted for the development of Visual Basic, MS-Access and xBase-related (FoxPro, Clipper, etc.) applications primarily geared towards small businesses. Programs were developed on MS-Windows, DOS under Lantastic, and Macintosh EtherTalk and AppleTalk platforms. Work included job-quotation leading to sole/joint design assignments with extensive customer contact and follow-up. Example of work includes developing an entire "off-the-shelf" accounting package in Visual Basic/Access for a major fast-food franchise outsourcing company. This was done during my service at the Defense Finance and Accounting Service (see below) to gain "real world" experience in anticipation of separation from the service.

## **Defense Finance and Accounting Service, USMC (DFAS-KC)**, Kansas City MO

05/92 to 11/94

Sergeant, Designer/Analyst, Branch Chief, Lead Programmer

As senior sergeant and branch chief when selected for Staff Sergeant, lead a team of up to seven junior programmers ranking from Private First Class to Sergeant in the development of applications written in the declarative language ADA (similar to Modula) utilizing the pre-defined packages of AdaSage and the CASE tools of THOR. These manpower, accounting and pay-related applications were designed using the Object-Oriented Paradigm and were written to be run on PC's in a field environment and were distributed worldwide. As a member of the Design Division for approximately 10 months, was responsible for systems analysis and documentation of mainframe batch and online applications via Decision Logic Tables (DLTs) and researching Production Incident Reports (PIRs) making recommendations for online record "jams" or program modifications as warranted. Banyan Vines group administrator. Secret level clearance held.

## Information Systems Support Services, USMC Twentynine Palms CA

10/89 to 04/92

Corporal, Programming NonCommissioned Officer In Charge

Responsible for a team of three junior marines in developing batch and online mainframe and PC Applications to fulfill local and regional accounting, manpower, financial, and logistical requirements with ADABAS Natural, COBOL, MARKIV, RPF, Clipper, dBase, Foxpro, and R:Base, Banyan Vines group administrator, and on-site trouble-calls. Secret level clearance held.

# **EDUCATION**

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