**MARK LINTNER**

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305-922-1668

**Technical Skills**

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|  | ***OPERATING SYSTEMS*** | **Windows 10, Windows 7, Windows XP, Windows CE, Windows Mobile, Windows Server, Solaris, ThreadX, PSOS, VX-Works, Unix, Linux, Android** |
|  ***DESIGN/DEVELOPMENT/METHODOLOGIES*** | **Booch, Jacobsen, RUP, Agile, SCRUM** |
| ***DATABASES*** | **SqlServer, SqlServer CE, Oracle 8i, 9i, ObjectStore PSE, MySQL** |
| ***DATABASE TOOLS*** | **Borland SQL, Toad, SQL Plus, SQl Manager** |
| ***DESIGN NOTATION*** | **UML2, Booch** |
| ***PROGRAMMING LANGUAGES*** | **C#, C/C++, Mono, Java, Assembler, XML, HTML** |
| ***DESIGN TOOLS*** | **Enterprise Architect, Rational Rose, Object Team, Together, Visual Paradigm, Visio Enterprise** |
| ***GRAPHICS*** | **DirectX, Direct3D, GDI+** |
| ***COMMUNICATIONS/ORBS*** | **WebServices, Bluetooth, TCP/IP, Http, COM+, Orbix** |
| ***COMPILERS*** | **C#, Microsoft Visual C++, GCC, Green-Hills, GCC, ARM 7** |
| ***DEBUGGERS*** | **Visual Studio .NET, Visual Studio 2015, 2012, 2003, 2005, 2008, 2010, OS/2 Kernel Debugger, CodeView, Solaris Workshop** |
| ***C++ CLASS LIBRARIES*** |  **STL, Boost, ACE*,* ZAF 511, MFC, Tools++, Microsoft Foundation Classes,**  |
| ***JAVA CLASS LIBRARIES*** | **AWT, Borland JBCL, SWING, J2SDK1.1-1.5, Servlet, Xerces, Log4j, Config4j, JUnit** |
| ***JAVA DEVELOPMENT TOOLS*** | **Intellij-Idea , JBuilder2005, Together/J, JProbe, Optimizeit, Eclipse3.0, ,**  |
| ***API*** | **Microsoft Win32 API, OS/2 Presentation Manager Unix , .NET Framework 1.0-4.5, GDI+, SetupApi,** |
| ***WEB DEVELOPMENT*** | **Apache Web Server, Tomcat, Java Server Pages, JSP, Servlets, XML, HTML, .NET Web Services, IIS** |
| ***WEB TOOLS*** | **Visual Studio .NET 2010, JBuilder 2005 Enterprise, Eclipse** |
| ***CONFIGURATION/CHANGE MANAGEMENT*** | **Teamcity, Team System, PVCS, ClearCase, CVS, Visual SourceSafe, SVN, SmartSVN** |
| ***BUILD/DEPLOYMENT/TESTING/ANALYSIS*** | **Microsoft Test, InstallShield, Rational Purify and PureCoverage, NUnit, CruiseControl, NCover, NDepend** |
| ***C# FRAMEWORKS/LIBRARIES*** | **.NET Full Framework 1.0, 2.0, 3.0, 3.5, 4.0, 4.5 Go.net, Opennetcf, Inthehand, NETCF 2.0, Log4Net, NUNIT Compact Framework 1.0, 2.0, 3.0, 3.5** |

**Experience**

15/10-16/6**GE Intelligent Systems –** Albany, NY

 ***Senior Developer – Microsoft C#, C++, Visual Studio2012***

 Participated in an Agile team of developers preparing, release 9.5 of GE Proficy Cimplicity HMI/SCADA management application. Work was performed in a Scrum environment. Tasks included debugging defects, correcting defects and addition of new features.

**Technologies applied: Visual Studio 2012, C/C++, SmartSVN, Rally, Teamcity**

05/13-12/13**Sinenomine –** Remote

 ***Senior Developer – Mono, .NET, VisualStudio 2012***

 ***Remote Position***

 Providing Mono consulting for Sinenomine clients including Cisco, Dell etc. Work involved project prototyping, estimation, providing bug fixes for MONO C/C++libraries, Transitioning team from.NET.to MONO(C#) on Centos 6.4 Linux, writing development process documentation, Mentoring developers on MONO(C#) on lInux. Prototyping C# web services using MONO and debugging related issues.

**Technologies applied: Visual Studio 2012, GNU compilers, LINUX, MONO, .NET Web Services**

07/11-01/13**WelchAllyn –** Skaneateles, NY

 ***Senior Developer – MONO, Microsoft C#, Visual Studio2010, C++, ARM***

 ***Shaneateles, NY***

 Participated in port of MONO 2.10.2 to CVSM 1.7. CVSM is a vital signs monitor powered by a large C++ application running on ARM processor with ThreadX Real Time OS. The intent was to support apps which enhanced the CVSM functionality. Implemented bug fixes in MONO code as well as the CVSM C++ code base. Wrote unit tests as well as apps in C#. In addition, participated in the CVSM 2.0 release effort including bug fixes and investigation as well as new features.

**Technologies applied: Visual Studio 2010, C# .NET, MONO, TFS, ARM Compiler, Lauderbach debugger**

06/10-6/11**GE Intelligent Systems –** Albany, NY

 ***Senior Developer – Microsoft C#, C++, Visual Studio2010***

 Design and development of features in upcoming release of GE Proficy Cimplicity HMI/SCADA management application. Development performed in C++ and C#. Implemented performance measurement scaffolding using C# which benchmarked the throughput of streaming property changes from the server to the client. Implemented various features in COM and MFC using visual C++. This included a fast tree browser component for visualizing and navigating the components of large SCADA systems.

**Technologies applied: Visual Studio 2008, Visual Studio 2010, .NET 4.0, SVN**

011/08-04/10**Medtronic –** Los Angeles, CA

 ***Senior .NET Developer – Windows CE, C# .NET Compact Framework 3.5***

 Participated in Design and development of .NET Applications for Medical devices. Developed C# controller software for Insulin Pump. Cross platform development targeting windows CE6 and Windows XP using Visual Studio 2008, .NET 3.5 and C#. Application had clear separation of View, Business logic and Data in Layered Architecture. Data represented state of insulin pump acquired in real time from insulin pump and patient characteristics stored in SqlServer Compact Edition. Responsibly included requirements analysis, design of several functional modules in the pump controller software including the notification management subsystem and business Layer. System is responsible for managing the lifecycle of asynchronous notification objects and presentation to the UI layer. Design documents performed using Enterprise Architect.

**Technologies applied: Visual Studio 2008, .NET 3.5. Windows CE6, C#, DOORS, SVN, Enterprise Architect**

07/08-09/08**Teradyne –** NorthRidge, MA

 ***Senior .NET Developer – Performance Analysis***

 Performed performance analysis and enhancement of large C# NET, managed and native C++. IC Automated Test Application. Analyzed mixed mode application and evaluated performance improvement methodologies. Prototyped improved C# algorithms and benchmarked performance improvements.

**Technologies applied: C#, Visual Studio .NET 2005, Windows XP, Yourkit Profiler, CLR Profiler**

07/06-07/08**SPX Service Solutions –** Kalamazoo, MI

 ***Senior .NET Developer – Windows CE C# Development***

 Design and implemention of C# .NET 2.0 mobile applications. Applications targeted Windows XP and Windows CE 4.2/ Participated in the design,, architecture, development, testing and delivery of DT2 diagnostic software. DT2 is a software with an multi-layered MVP architecture. It supports diagnostics and maintenance of Harley-Davidson motorcycles. Responsible for design and development of communication infrastructure, supporting multiple automotive protocols such as CAN and J1850. accross Bluetooth SPP, USB or Serial channels. Implemented platform independent Bluetooth and USB connection management BLUETOOTH. Communications software in C# 2.0 and NETCF 2.0 to support data transfer between motorcycle diagnostic port and windows CE handheld as well as laptop and desktop PC, diagnostic devices for Harley Davidson’s 2008, motorcycle line.. Work was performed in C#, using Visual Studio 2005. The software operates on Windows XP and Windows CE 5.0.

**Technologies applied: C# NET, Visual Studio .NET 2005, Windows CE 4.2, 5.0, ClearCase, ClearQuest. C++, Intermec, Viewsonic, PocketPC 2003, OpenNETCF, Widcomm Bluetooth, Visual C++, evC++4.0, USB, Silicon-Labs**

12/05-07/06**Bally Technologies –** Reno, Nevada

 ***Senior .NET Developer – Windows.NET C# Development***

 Performed software development and maintenance using C# NET, Visual Studio 2003. Development of SOAP-XML Web Services over SSL. Implemented and maintained xml dialect conformant with Gaming Standards S2S specification. Work closely with vendors on solutions for interconnecting groups of networked casino devices. accounting backend . Web Services communicationed loosely with Data Access Layer built of SqlServer. Troubleshoot problems with **C# Web Services** in the Gaming Software environment

**Technologies applied: Soap Web Services, C#, MSMQ, Visual Studio .NET 2005, SQL Server 2000, TestTrack, Visual Source Safe 2005**

9/05-11/05**Independent Stock Trader –** Pompano Beach, FL

 ***Senior .NET Developer – Windows.NET C# Development***

 Performed design and development of real time securities data acquisition, management and analysis applications using TalTrade.Toolkit, C#.NET and Visual Studio .NET 2005 beta. Application was a layered design with views in the UI Layer decoupled from the persistence layer and TAL data services.

**Technologies applied: TalTrade.Toolkit, C#, Visual Studio .NET 2005**

3/05-8/05**Motorola –** Plantation, FL

 ***Senior Developer – Windows Ce.NET Development***

 Performed development and maintenance tasks related to pre-release smart phone products.

**Technologies applied: Windows CE.NET, C++, SmartPhone 2003 SDK, ClearCase, ClearQuest**

10/04-2/05**Acres Gaming –** Corvallis, OR

 ***Senior .NET Developer – Windows Development***

 Performed software design, development and maintenance tasks related to B2B web interoperations. Implemented SystemToSystem, interoperation layer which allows separately networked groups of casino machines, to exchange information in a secure and failsafe manner. SystemToSystem was implemented with a UI layer, and data layer. Site to Site messaging uses XML-SOAP over SSL with IIS as web server and interprocess communication utilized MSMQ. The interoperation layer consists of a **SOAP WEB SERVICE**, a multi-threaded, soap message posting demon and **SQLSERVER** based persistence mechanism maintained using ADO in the data layer. XML dialect was conformant to Gaming Standards XML schema. Web Services communicated with the data access layer which implemented the transactions against SQLServer in the casino back office.

**Technologies applied: NET, C#, ADO, VISUALSTUDIO.NET 2003, ALTOVA XMLSPY 2005, RESHARPER, MICROSOFT SQLSERVER 2000, ENTERPRISE MANAGER, WINDOWS SERVER 2003, IIS6.0, SOAP, XML, WEB SERVICES, SSL Cassini web server**

05/03-06/04**Computer Associates –** Houston, TX

 ***Senior Developer – Windows Development***

Performed software development, and maintenance tasks associated with various shrink-wrapped, commercial, software products.

**Technologies applied: NET, C#, C++, VISUALSTUDIO.NET 2002, VISUAL C++ 6.0, MFC, ORACLE9i, RATIONAL PURIFY, PURECOVERAGE, JAVA, ECLIPSE2.1, ATL, HARVEST SCM, ERWIN, SCC, PLUGINS**

07/02-04/03**Shell International - BTC,** Houston, TX

 ***Designer/Developer – Windows .NET/C#/Forms Windows Development***

 Implemented an interactive, 2d network design and simulation tool. This Tool is embedded in a legacy reservoir simulation application. This was written in C# and embedded using C++, MFC and COM+ using Document and data layers. Relevant data and configuration was persisted in SQLServer. The controls were driven by the legacy application and interface between unmanaged legacy code and C# controls was accomplished with COM+. Interfaces were hand coded for several classes.

Extensive use of C# Forms was made in the development of the editor interface. A small forms based widget framework was designed to support custom visual objects such as legends and headings. A derived object could be placed in any location on the network editor by dragging and properties edited in place. GDI+ was used to support custom drawing in these widgets.

The entire editor was configurable through property sheets and custom attributes were developed to control the display of properties in different contexts.

Object data stored in the network representation objects is reflected in a Dataset generated from a schema. Data was passed from the dataset to the application as XML using the XmlSerializer.

**Technologies applied: COM+, COM, NET, C#, C++, GDI+, Visual Studio .NET,.GO.NET, XML, SqlServer.**

12/01-07/02 **Sonar-Wire Inc. -** Abita Springs, LA (Offsite Development)

 ***Designer/Developer – 3D Graphics/Windows Development***

 Implemented an integrated report manager, which allows viewing of any number reports through internal multiple document interface viewer. Implemented layered 2d image mechanism which displays images in background of 3d visualization environment. Implemented display of AutoCAD DWG files as layer in background of visualization as storage field schematic. Added enhancements to the 3D environment including, panning and zoom functionality

**Technologies applied:** **VISUALC++6.0, DIRECTX, DIRECT3D, IMAGE PROCESSING, OPENDWG, WIN32API, ZAF, OBJECTSTORE PSE, VICTOR IMAGE LIBRARY**

09/00-12/01 **Continuum Resources** Houston, TX

 ***Designer/Developer –CORBA/Windows/Distributed Development***

 Architect designer and implementer of multi-user Collaboration Facilities, part of VITOS. These facilities support the synchronization and replication of shared properties, data and attributes amongst multiple remote users. The Collaborative Facilities are based on a hybrid model. C++ objects are managed, synchronized and replicated using an underlying CORBA communications framework. It is implemented using the TAO-ACE ORB. This is a middleware which as well as providing runtime support for collaboration is designed to simplify programming for the collaborative shared environment from domain experts who extend the application with new data and presentation objects. The architecture of VITOS Collaboration Facilities middleware cooperatively enables a state of art level of VR collaboration.

**Technologies applied:** **CORBA, ACE-TAO, C++, UML, VISUALC++6.0, COLLABORATION, UNIX, SQL SERVER**

12/99-12/2002 **Pro-Estimate Inc.,** Grand Rapids, MN (Offsite Development)

 Multi-layered web applications for the construction industry MVC based architecture. Web presence supported SERVLETS JSP, JavaScript and JAVA SDK using JAKARTA TOMCAT Servlet container. Standalone java construction applications

**Technologies applied JBUILDER8.0, INSTANTIATION’S INSTALL ANYWHERE, TOMCAT, SWING, SERVLETS, JSP. JavaScript, MYSQL**

11/99-09/00 **Enron Corporation** Houston, TX

 ***Designer/Developer –CORBA/Windows/Distributed Development***

 Participated in the Sitara project. This is a C++, CORBA, distributed trading application. It uses Oracle8i and Orbix ORB on the Solaris platform. My responsibilities involved new coding, maintenance and debugging of the Sitara system. Some highlights include performance tuning of processing code using Rogue wave thread library, optimizing database writes using OTL arrays. Database maintenance scripts using PERL. Performance enhancements on legacy C code using PL/SQL and PRO-C. This involved adding multi-threading using Solaris threads in computationally light sections of code and submitting database request in large blocks.

**Technologies applied:** **ROGUE WAVE THREADS++, DBTOOLS++, TOOLS++, STL, C, C++, SOLARIS, CORBA, ORBIX, PERL, ORACLE8I, PRO-C, PL/SQL, MULTI-THREADING**

08/99-11/99 **Raytheon E-Systems** ST. Petersburg, FL

 ***Designer/Developer –CORBA/Windows/Distributed Development***

 Participated in the Joint Tactical Terminal project. This involved development of CORBA distributed network objects using Visual C++ 5.0. Documentation of the design was performed using Cayenne Object-Team. The software was developed on Windows NT and portable to the target platform VX-Works. The portability was achieved by using the TAO OB and ACE Library. Use of CORBA in JTT allows objects located on multiple microprocessor boards, connected by Ethernet to communicate and collaborate to perform hardware control tasks and transfer data.

 **Technologies applied:** **PERL, VX-WORKS, GREEN HILLS C++, UML, CORBA, ACE-TAO, VISUALC++, DOORS, and CAYENNE OBJECTTEAM, EMBEDDED**

03/99-08/99 **Sonar-Wire,** Abita Springs, LA (Offsite Development)

 ***Designer/Developer – 3D Graphics/Windows Development***

 Designed and implemented a high-resolution 3D plotting facility for underground storage cavern visualization application. This was implemented mainly using Microsoft Direct3D API, device independent bitmaps and windows printing services. Coding was done on Windows 98 with Microsoft Visual C++ 5.0.

 Implemented an object-oriented database for the management of geological data. Implemented object-oriented database based ODI Object-Store, using C++. Coding was done using Microsoft Visual C++ 5.0 on Windows 98 platform.

 **Technologies applied:** **DIRECTX, DIRECT3D, ZAF, VISUALC++5.0, OBJECTSTORE, OPENDWG, VICTOR IMAGE LIBRARY**

03/98-04/01 **Solution Crafters,** Houston, TX (Offsite Development)

 ***Designer/Developer – Java***

(Developed concurrently with several other projects)

 Designed and implemented a residential construction estimation application using Java 1.1.6. The application included developing the GUI, some 40 panels, a project database, calculation engine and the HTML reporting facility. Development was done using JDK 1.1.6 and the JBuilder3.5. SWING, AWT and JBCL components were used in the development of the GUI.

 Designed and developed, web application using JSP, JavaScript and Servlets which managed the login, user and data management as well as configuration of estimation software and estimations.

 **Technologies applied**: **JDK1.6, SWING, JBCL, JBUILDER3.5, AWT, INSTALLSHIELD**

10/96- 03/99 **Sulzer-Intermedics Corporation,** Angleton, TX

 ***Designer/Developer – Real-Time communications - Windows NT and PSOS Embedded Development***

 Designed and implemented a platform independent, Generic Application Reporting framework as an extension to Zaf511 User Interface Library. At the core of this framework is a recursive mechanism, which traverses the data structures within a Zaf Window, gathering text data and position information. A process was developed by which Zaf Designer GUI editor is used to support the creation of custom report pages. This source code for this framework compiles and runs on Windows NT and PSOS.

 **Sulzer-Intermedics Corporation,** Angleton, TX

 Using OCS framework (see below), designed, implemented a platform independent real-time waveform data acquisition, delivery and storage subsystem to support Sulzer-Intermedics Rx7000 generation of pacemaker programmer software. This subsystem is responsible for managing the acquisition of IEGM and ECG data from peripheral devices. It is further responsible for synchronizing samples from separate time based sources into coherent multiple sample packets, storing them and distributing them in a form suitable for real-time and offline processing, display and printing. Waveform clients can receive data simultaneously in multiple

applications, on the same PC, since the OCS communication framework on which it is based is application independent. Stringent requirements as drafted by clinical and marketing were followed in every phase of development. The software was developed on windows NT 4.0 using Microsoft C++ 5.0 and also runs on PSOS due to the platform independence of OCS. (see below). This subsystem was delivered on time as an integral component of the Sulzer-Intermedics Rx7000 programmer application framework supporting its premier pacemaker programmer product, Z-Pace.

**Sulzer-Intermedics Corporation,** Angleton, TX

Architected, designed and implemented Object Communication Services [OCS]. Design was performed using Rational Rose and Booch Methodology. OCS is a CORBA influenced platform independent object communication framework, which provides high speed real-time facilities for communication and processing of data and events enabled through inheritance from framework base classes. OCS provides the backbone communication of a scalable multi-threaded application architecture consisting of collections of loosely coupled intercommunicating objects. Currently OCS supports the Windows NT development and the PSOS application deployment environment.

. A framework of classes derived from OCS was at this time used at Sulzer-Intermedics to implement a pacemaker communication subsystem, which handles low-level serial communication between pacemaker programmer applications and a proprietary wand interface controller. This is used as part of the Windows NT application development environment and supports about 50 users.

**Technologies applied: PSOS, SOFTPROBE, EMBEDDED, REAL-TIME, WINDOWS NT, RATIONAL ROSE, DAQ, RS-232 SERIAL, EMBEDDED COMMUNICATION, VISUALC++4.5**

9/95-9/96 **Compaq Corporation,** Houston, TX

 ***Designer/Developer – Windows Development***

Participated in reengineering the Compaq hardware testing process for the purpose of decreasing the defect level of shipped products.

. Object oriented analysis/design/implementation of Expert System on NT platform using MFC. Provided Architecture and design for an Object Oriented knowledge manipulation framework. The framework provided the building blocks from which an application that would collect expert repair information from test developers, store it in a knowledgebase and finally communicate it to the rework technicians on the factory floor was implemented. The framework and application were incrementally designed and implemented using the Rational Rose design tool AND Booch methodology. Its code generation and reverse engineering capabilities were utilized.

Participated in the implementation of the framework. The target operating system was Microsoft Windows NT and the development environment was Microsoft Visual C++ 4.1. MFC was utilized to take advantage of persistence, collections, and GUI classes.

**Technologies applied**: **MFC, WINDOWS NT, and RATIONAL ROSE**

08/94-08/95 **CSX Corporation,** Jacksonville, FL

 ***Designer/Developer – OS2 Development***

Performed object-oriented design and development, including the following: Participated in the development of the Power Management System. This is a large OS/2 based Object-Oriented client/server application that was designed to aid in the scheduling of locomotives for maintenance. The design is based on the MVC architecture and supports the display of rich graphical views with minimal latency. It is implemented in C++ and uses a proprietary language called DAFI to perform host transactions through CICS. Main responsibility was the design and implementation of the Shop Details View. This is a highly complex container-like representation of a locomotive maintenance shop schedule, where locomotive icons are arranged in columns spanning 92 days. The design was documented in Booch notation using Rational Rose.

Responsible for implementing defect corrections to the CSX Transportation Workstation application. This involved identifying the cause of incorrect behavior in the application and writing C++ code to correct the condition.

**Technologies applied**: **CICS, OS2WARP, CSET++, RATIONAL-ROSE**

10/90-8/94 **IBM Corporation,** Boca Raton, FL

***OS2 2.1 Defect Analysis, Debugging and Correction***

Responsible for analysis and correction of software defects in IBM Development Tools, including REXX and DOS Debug APIs. Responsible for maintenance and support of LINK386 including enhancement of it’s capabilities in the C++ arena. Implemented software correction of defects in the thread support and memory paging subsystems of OS2 2.1. Maintained the OS/2 Developers Toolkit and tools shipped with it. Development of PM and VIO based applications to explore operating system behavior in respect to reported customer OS2 system problems. These applications were written sing IBM C/C++ compiler and IBM CSet++ libraries. Development of an object oriented source parser and browser. Remote and local kernel debugging of customer operation system problems.

***OS2 Systems Test***

Debugging of problems with DOS API interface including tasking, multi-thread support and semaphores. Debugging of low level OS/2 memory management component.

 **Technologies applied: OS22.0. OS21.5, WARP, WINDOWS 3.1, DOS**, CMVC

4/88-8/90 **University of Miami, Biology Department,** Miami, FL

Participated in research. Provided computer-based statistical analysis of research data derived from experiments in techniques for reclaiming tropical wetlands polluted by oil spills. STATISTICS SOFTWARE

**Education**

 **University of Miami,** Miami, FL

BS in Computer Engineering