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Introduction

Patrick (Pat) has been working in the IT Industry since 1975. He received his B.S. degree in Physics from The Ohio State University with a focus on computational physics. In the past he has held a number of high-profile positions including, Field Service Instructor with Digital Equipment Corporation, SE Regional Field Service Supervisor with CRISP Automation, Network Manager with Crown/NorthCorp, Store Systems Software Architect with Big Lots Stores, and Lead eBusiness Software Architect and Senior Technical Instructor with Caspian Software.

He has an extensive and varied background in software and hardware systems including hardware systems service and training, industrial control and automation, network and systems management, project management, and software systems analysis, design, implementation and training. His specialties are software systems architecture using Object Oriented Analysis and Design techniques with a focus on internet-based systems and service-oriented architectures. Pat has been a featured speaker at numerous seminars and trades shows and currently holds the position of President / CTO with developersDen, a technical training and consulting services provider, and Microsoft Certified Partner with competencies in Custom Development Solutions and Data Management Solutions, located in Castle Rock, Colorado.

Skills

Programming Languages/Technologies

C# .NET, Java, Visual Basic.NET
VBScript, JavaScript, Transact-SQL,
ASP.NET, ADO.NET, XML Web Services

Industry Certifications

Microsoft Certified Trainer (MCT)
Microsoft Certified Systems Engineer (MCSE)
Microsoft Certified Solutions Developer (MCSD.NET)
Microsoft Certified Database Administrator (MCDBA)
Sun Certified Programmer for the Java 2 Platform
Microsoft Certified Professional Developer: Enterprise Applications (MCPD: Enterprise)



Courseware Development

Java Programming Fundamentals
WebMastering I (HTML, CSS, XML)
WebMastering III (JavaScript, ASP)
Introduction to Visual Basic .NET

Advanced Java Programming
WebMastering II (JavaScript, DHTML)
Introduction to SQL Server 7.0
Introduction to C# .NET

Training Experience

Visual Studio 2005

2541 - Core Data Access Development with Visual Studio 2005
2542 - Advanced Data Access Development with Visual Studio 2005
2543 - Core Web Application Development with Visual Studio 2005
2544 - Advanced Web Application Development with Visual Studio 2005
2546 - Core Windows Application Development with Visual Studio 2005
2547 - Advanced Windows Application Development with Visual Studio 2005
2548 - Core Distributed Application Development with Visual Studio 2005
2549 - Advanced Distributed Application Development with Visual Studio 2005

SQL Server 2005

2779 - Implementing a Microsoft SQL Server 2005 Database
2780 - Maintaining a Microsoft SQL Server 2005
2781 - Designing Microsoft SQL Server 2005 Server-Side Solutions
2782 - Designing Microsoft SQL Server 2005 Databases
2783 - Designing the Data Tier for Microsoft SQL Server 2005
2784 - Tuning and Optimizing Queries Using Microsoft SQL Server 2005
2786 - Designing a Microsoft SQL Server 2005 Infrastructure
2787 - Designing Security for Microsoft SQL Server 2005
2788 - Designing High Availability Database Solutions Using Microsoft SQL Server 2005
2789 - Administrating and Automating Microsoft SQL Server 2005 Databases and Services
2790 - Troubleshooting and Optimizing Database Servers Using Microsoft SQL Server 2005



Microsoft Official Courseware

- 2559 – Introduction Microsoft Visual Basic .NET Programming
- 2373 – Programming with Microsoft Visual Basic .NET
- 2415 – Programming the Microsoft .NET Framework with Visual Basic .NET
- 2565 – Developing Microsoft .NET Applications for Windows using Visual Basic .NET

- 2500 – Introduction to XML and the Microsoft .NET Platform
- 2663 – Programming with XML in the Microsoft .NET Framework

- 2640 – Upgrading Web Development Skills from ASP to Microsoft ASP .NET
- 2310 – Developing Web Applications Using Visual Studio .NET
- 2524 – Developing XML Web Services Using Microsoft ASP .NET
- 2311 – Advanced Web Application Development using Microsoft ASP.NET
- 2366 – Developing High Performance and Scalable Web Applications

- 2609 – Introduction to C# Programming with Microsoft .NET
- 2124 – Programming with C#
- 2349 – Programming the Microsoft .NET Framework Using C#
- 2555 – Developing Microsoft .NET Applications for Windows using C#

- 2389 – Programming with ADO.NET
- 2350 – Securing and Deploying Microsoft .NET Assemblies
- 2557 – Building COM+ Applications Using Microsoft .NET Enterprise Services
- 2526 – Developing Distributed Applications with Microsoft .NET Remoting

- 2710 – Analyzing Requirements and Defining Microsoft .NET Solution Architectures
- 2090 – Modeling Business Requirements to Create a Database Using .NET Enterprise Architect
- 2071 – Querying MS SQL Server 2000 with Transact-SQL
- 2073 – Programming a Microsoft SQL Server 2000 Database

- 2364 – What's New in Microsoft Visual Studio 2005 for Existing .NET Developers
- 3201 – What's New in Microsoft ASP.NET 2.0 for Existing ASP.NET 1.0/1.1 Developers
- 2734 – Updating Your Database Development Skills to Microsoft® SQL Server™ 2005



IT Courseware

Introduction to XML
Java Fundamentals
Java Programming
Advanced Java Programming
Server-Side Java Programming
Object-Oriented Analysis and Design

AppDev Technical Publishing

Microsoft SQL Server 2005
SQL Server 2005 Reporting Services

Web Age Solutions

Object-Oriented Analysis and Design with Rational Rose

SkillBuilders

Fundamentals of Java Programming

Presentations & Publications

Object-Oriented Programming: An Overview – Columbus ITEC 2000, 2001

Java! When and Where? – Mid-Ohio Training Consortium (MOTC) Quarterly Meeting 2001

Microsoft .NET – A Development Revolution! – Columbus ITEC 2001

Microsoft .NET – One Year Later – Columbus ITEC 2002

.NET versus J2EE – Ask the Experts, AmeriTeach and the ICC, Denver CO

Introduction to SQL and Relational Databases – Motorola End User Conference 2007



Awards and Recognitions

Selected as an *MCT Ambassador* for the Visual Studio 2005/SQL Server 2005 launch event

Founding member of Microsoft's *Members Helping Members (MHM)* program

Recognized as one of the first individuals to achieve the MCSD for Visual Studio 6 certification

Authorized by Microsoft, to deliver the *.NET Developer's Tour* training sessions

Recognized for outstanding achievement in software development by Odd Lots Stores

Recognized for outstanding achievement in project management by RJR/Nabisco

Project Experience

PBI Eclipse – Pharmaceutical Buyers, Inc

Role: Project Mentor

Description: This project consisted of the complete re-design of an in-house enterprise-level application which provides CRM and contract management capabilities. The system analysis and design utilized a modified RUP process and is being implemented as an n-tier, data-driven, application utilizing Microsoft .NET 2.0. The data layer was built against SQL Server 2005 leveraging ADO .NET 2.0, SQL Server 2005 Integration Services and SQL Server 2005 Reporting Services. Presentation functionality leverages ASP .NET 2.0 and Windows Forms and all application logic was coded using C# 2.0.

Responsibilities:

- Gathered and documented all user requirements
- Co-authored the overall system design and detailed design documents
- Provided oversight management and technical direction for the development team



ApPRINTice Pro – developersDen, Inc

Role: Project Lead

Description: This project consisted of a Microsoft .NET Windows-based application suite providing CRM, job estimation, invoicing, and reporting capabilities which is being marketed to the printing and imaging industry. All application logic was coded using C#.

Responsibilities:

- Gathered and documented all user requirements
- Co-authored the overall system design and detailed design documents
- Provided oversight management and technical direction for the development team

Lenticular Pro – developersDen, Inc

Role: Project Lead

Description: This project consisted of a Microsoft .NET Windows-based imaging application which is being marketed to the printing and imaging industry. All application logic was coded using C# and leveraging GDI+.

Responsibilities:

- Gathered and documented all user requirements
- Co-authored the overall system design and detailed design documents
- Provided oversight management and technical direction for the development team
- Coded a .NET assembly which supported image interlacing for the Lenticular process

Contact Management System – Reliance Trade Bindery

Role: Project Lead

Description: This project consisted of a data-driven, Windows-based application utilizing Microsoft .NET. All application logic was coded using C#.

Responsibilities:

- Provided oversight management and technical direction for the development team



Learning Management System – American IT

Role: Project Lead

Description: This project consisted of a data-driven, web-based application utilizing Microsoft .NET. The user interface and business layer services were implemented using ASP.NET, while the data layer was built against SQL Server 2000. All application logic was coded using C#.

Responsibilities:

- Gathered and documented all user requirements
- Authored overall system design and detailed design documents
- Provided oversight management and technical direction for the development team
- Coded ASP.NET Web Services to support various business layer services

Content Management System - Klein Buendel

Role: Mentor

Description: This project consisted of making incremental improvements to the design of a large-scale content management system which will be implemented as part of an ASP .NET web application written in C# .NET. The end product will be marketed to the Healthcare Industry.

Responsibilities:

- Evaluated and recommended improvements to system architectural design
- Recommended specific .NET technologies and techniques

Time Synchronization Application - NIST

Role: Development

Description: This project consisted of the complete VB .NET rewrite of a legacy BASIC application which accesses satellite-based atomic time information via the system serial port. The end product will be deployed throughout the world to individuals and organizations wishing to keep PC systems clocks synchronized with the atomic clock time.

Responsibilities:

- Coded the application



Lentric's Web Application - GMT Consulting

Role: Project Lead

Description: This project was implemented using ASP, combined with custom DLL's for creating Lenticular images. The ASP functionality was coded using Jscript, while the custom DLL was coded using Visual Basic 6.0 and leveraged the LEAD Technologies ActiveX graphics libraries. A .NET assembly, for file system maintenance, was coded using C# .NET.

Responsibilities:

- Gathered and documented all user requirements
- Co-authored the overall system design and detailed design documents
- Provided oversight management and technical direction for the development team
- Provided technical support to ASP developers in providing cross-browser compatibility
- Coded a custom DLL which supported image interlacing for the Lenticular process
- Coded a .NET assembly which supported file system maintenance

Course Registration System – Caspian Software/Qwest Communications

Role: Project Lead

Description: This project was implemented using a combination Active Server Pages combined with ADO for access to the backend SQL Server 7.0 database. The application was used to allow Qwest employees to register for IT training via their intranet site.

Responsibilities:

- Gathered and documented all user requirements
- Co-authored the overall system design and detailed design documents
- Provided oversight management and technical direction for the development team

Test Registration System – Caspian Software

Role: Project Lead

Description: This project was implemented using a combination Active Server Pages combined with ADO for access to the backend SQL Server 7.0 database.

Responsibilities:

- Gathered and documented all user requirements
- Co-authored the overall system design and detailed design documents
- Provided oversight management and technical direction for the development team



Site Security Assessment – GeoTrac

Role: Team Lead

Description: This project consisted of a complete assessment of the security systems and vulnerabilities for all GeoTrac in-house systems. Vulnerabilities to intrusion and possible security breaches by both internal and external parties were documented and presented to the customer along with recommended corrective actions. Systems involved included Windows NT servers running Exchange, IIS, and SQL Server, development systems, and AS/400 servers.

Responsibilities:

- Developed the overall testing strategy
- Provided oversight management and technical direction for the assessment team
- Performed various system test and analysis procedures
- Documented test results and corrective action proposal

Opus Consumer Call Tracking System – William Lau & Associates

Role: Project Manager

Description: This project consisted of the conversion of an existing Visual Basic 5.0 and Access, using DAO as the data access technology to Visual Basic 6.0 using ADO as the data access technology.

Responsibilities:

- Assisted with the overall system analysis and design
- Provided oversight management and technical direction for the development team

Lease Transportation and Mileage System – Columbia Energy of Ohio

Role: Application Architect

Description: This project consisted of the conversion of a legacy application to an object-oriented design, implemented in Visual Basic or Java. The system utilized DB/2 as the backend data store. A three-tiered design was utilized to provide for a scalable and extensible architecture.

Responsibilities:

- Gathered and documented system and business requirements
- Authored preliminary system design documents using object-oriented techniques
- Authored system data flow diagrams



Y2K System Analysis – State of Ohio

Role: Senior Analyst

Description: This project consisted of a two-phased effort. The initial focus was on the Y2K evaluation of over 25 software systems. The languages and tools involved included COBOL, BASIS, SAS, VAX RDB and INGRES. The second-phase of the project involved the planning and documentation of business requirements and an overall design architecture to be utilized in the conversion of all mainframe and midrange systems to a Client/Server architecture utilizing Microsoft's Visual Basic 6.0, Visual InterDev 6.0 and SQL Server 7.0 development tools.

Responsibilities:

- Evaluated various mainframe and midrange systems for possible Y2K concerns
- Gathered and documented system and business requirements
- Authored preliminary system design documents
- Authored detailed system data flow diagrams

Reporting Application –Ohio Department of Insurance

Role: Development

Description: This project consisted of the development of a reporting utility to be used to track information concerning independent insurance agents operating in the state of Ohio. The project was implemented as a desktop solution using Visual Basic 5.0 and Access.

Responsibilities:

- Designed the application
- Coded the application



Merchandising Application Suite –Big Lots Stores

Role: Project Lead

Description: This project consisted of the complete Windows-based re-write of all Store Systems merchandise applications (ordering, transfer, vendor return, PO receiving, etc.) for over 700 Odd Lots/Big Lots stores. The project was implemented as a hybrid Client/Server – Distributed system using Delphi 1.0 for the Windows 3.1 client applications, Delphi 3.0 for the Windows NT server applications, and a combination of SQL Server 6.5 and AS/400 as the back-end databases.

Responsibilities:

- Gathered and documented all user requirements
- Authored the overall system design and detailed design documents
- Coded a Delphi 3.0 application to provide an AS/400 middle-layer interface for both client and server applications
- Coded a Delphi 3.0 application to FTP files to both AS/400 and NetWare systems
- Coded a Delphi 3.0 application to monitor all NT server applications and provide alerts via AS/400 messaging and pager systems in the event system errors
- Coded a Delphi 3.0 unit to provide multi-threaded sockets communication between client and server applications
- Provided oversight management and technical direction for the development team
- Assisted QC team in developing testing scenarios

Help Desk System – Odd Lots Stores

Role: Project Lead

Description: This project consisted of the design and implementation of a multi-user Help Desk application, utilized by ~15 in-house Help Desk associates to support call and inventory tracking functions for over 1000 stores. The project was implemented as a client/server solution using Delphi 1.0 and Interbase 4.0. The year after its successful release he performed a major rewrite of the application using Delphi 2.0 and implemented stored procedures and triggers in the remote database to enhance performance.

Responsibilities:

- Gathered and documented all user requirements
- Authored the detailed design documents
- Designed the Interbase 4.0 database
- Coded the entire application



Sales Application Suite –Big Lots Stores

Role: Project Lead

Description: This project consisted of the complete Windows-based re-write of all Store Systems sales applications (POS communications, balancing sales reporting, etc.) for over 700 Odd Lots/Big Lots stores. This project was implemented as traditional Windows 3.1 client applications written using Delphi 1.0 and Local Interbase 4.0 as the client database, batch-oriented server applications using a combination of Delphi 2.0/3.0 and SQL Server 6.5 as the back-end database.

Responsibilities:

- Gathered and documented all user requirements
- Authored the overall system design and detailed design documents
- Designed the SQL Server 6.5 database for all sales information
- Coded a Delphi 1.0 application to provide a menu interface to all other client applications
- Coded a Delphi 1.0 application to provide Sales/Payroll reporting information to both store and General Office management
- Coded a Delphi 1.0 application to interface with Sharp/Datasym Comm2000 register software for the purpose of loading and polling cash registers
- Coded a Delphi 2.0 application to parse POS register data files and load this information into a SQL Server 6.5 database
- Coded a Delphi 3.0 application to FTP files to both AS/400 and NetWare systems
- Coded a Delphi 3.0 application to monitor all NT server applications and provide visual status information to Operations and Help Desk associates
- Provided oversight management and technical direction for the development team
- Assisted QC team in developing testing scenarios

Merchandising Application Suite – All for One/ItzaDeal Stores

Role: Project Lead

Description: This project consisted of the initial implementation of the Store Systems application suite to support the Intrepid system, for over 200 All for One and ItzaDeal stores. The project was implemented as traditional Windows 3.1 client applications written using Delphi 1.0 and Local Interbase 4 as the database backend.

Responsibilities:

- Gathered and documented all merchandise systems user requirements
- Authored the detailed design documents for all merchandise applications
- Designed the Interbase 4.0 database for all merchandise information
- Coded all merchandise applications
- Provided oversight management and technical direction for a team of contract developers for the sales portion of the applications