

RoseAnne Mussar

53 Aero Drive
Ottawa, Ontario
K2H 5E3

Phone: (613) 829-7035
Cell: (613) 290-4451
Email: rose@GarnetStar.com

Objectives

- Design and develop applications that deliver power and usability to customers
- Offer services as designer, developer and technical expert as an individual contributor and within a team environment
- Seek out challenges for growth in technical knowledge and professional skills

Expertise

- Technical Skills:
 - C++ and C programming languages, Visual C++, MFC
 - Microsoft .NET Framework, C#, Visual Basic.NET, ADO.NET
 - ASP, client/server
 - JavaScript, VBScript, HTML
 - COM and ActiveX (ATL and MFC)
 - Object Oriented Analysis and Design (OOA/OOD)
 - Graphical User Interface design
 - Windows graphics programming using GDI/GDI+
 - Palm programming, Metrowerks CodeWarrior IDE
 - Rogue Wave Stingray Studio, Infragistics UltraSuite, Developer Express .NET, ESRI MapObjects 2.0
 - Familiarity, to varying degrees, with the following technologies:
 - SQL, Microsoft SQL Server 2000 data engine (MSDE), Microsoft Access, MySql
 - UP.SDK version 3.2 from Phone.com (WAP/WML)
 - Visual Basic, Java, Fortran
 - Visual SourceSafe
 - TCP/IP, sockets
 - XML and related technologies such as XSD, XSL, DTD, SVG
 - UML (class diagrams, sequence diagrams, use cases, etc.)
 - The WinInet (HTTP), MAPI, and TAPI Windows APIs
- Professional Skills:
 - Leadership, initiative, innovation and teamwork
 - Customer requirements analysis, project management, impact/tradeoff analysis
 - Software Development Life Cycle (SDLC): specification writing, design and development, testing and maintenance
 - Application architecture, business requirements analysis
 - Technical research, rapid knowledge acquisition and deployment
 - Communication, technical writing
 - Broad-based experience serving the telephony and EDA industries, as well as exposure to other business models

Experience

Webplan, Kanata (October 2002 – December 2002) - Contract

Developed a thin client application for a Supply Chain Management service:

- Worked from an existing design specification to create a useful and usable GUI
- Gained an understanding of the problem space of supply chain management, capacity planning, bills of material, etc.
- Created a browser-based application using HTML, and client-side and server-side scripting (JavaScript and VBScript, respectively)
- Designed and implemented a reusable “Cascading Filter” GUI element to provide sophisticated data filtering options as defined in the design specification

BrightBits Digital and Visual Arts, Ottawa (June 2002 – July 2002) – Personal Project

Designed and developed a work order database application for my hobby business:

- Learned the relevant technologies: SQL, MSDE, Access, Visual Basic.NET, ADO.NET
- Designed the database in Access; created an efficient, normalized set of data tables that accurately captured the requirements for a photo processing service
- Created a powerful, user-friendly client application using Visual Basic.NET; implemented the database connectivity with ADO.NET

Network Planning Systems Ltd., Hull (March 2001 – January 2002) - Contract

Assisted this startup company in developing a new and innovative network planning and modeling application by performing the following roles:

- Technical Researcher:
 - Rapidly learned the various technologies and programming environments required during the product prototyping effort: COM/ ActiveX, XML, .NET Framework, C#, Infragistics UltraSuite, Rogue Wave Stingray Studio, Developer Express .NET, ESRI MapObjects, SVG, GDI+, UML
 - Evaluated third-party tools, controls and libraries, and made recommendations based on functionality, quality, company reputation, and support policy; rejected third-party solutions in favour of in-house development where applicable
 - Researched and developed a dynamic component loading technique for both classic Windows (ActiveX) and .NET applications
 - Worked out many difficult technical problems involved in integrating the disparate tools and components (Infragistics, ESRI MapObjects, ActiveX – both ATL and MFC, .NET, GDI/GDI+)
- Architect:
 - Quickly ramped up on knowledge of network planning and modeling to gain a basic understanding of the GUI and functional requirements, and how these requirements fit in with the business plan
 - Developed a component-based MVC architecture, that focused on both functional and marketing flexibility; strategically switched from a classic Windows-based component architecture to a .NET-based architecture once .NET passed the threshold for stability, performance and industry acceptance
 - Participated in architecture discussions with the product development team; provided valuable insights into Windows application and component architecture
- Designer:
 - Designed a class structure for a network object model that addressed the innovative requirements for this new product; applied knowledge from previous experience in CAD applications
 - Designed a simple XML schema for network model and instance data
 - Implemented a skeleton network planning application to create a network based on an XML description, display the network over a geographical map, and allow the user to interactively edit the network; thoroughly documented this application so that the NPS development team can carry it forward
- Mentor:
 - Applied extensive Windows programming expertise in helping the developers move from Unix to the Windows development platform; provided suggestions for many useful reference materials such as books, knowledge bases, discussion forums, etc.
 - Implemented and documented many sample programs and prototypes illustrating the use of COM/ ActiveX, .NET, XML and various third-party toolkits

Nortel Networks (eXtremeVoice project), Ottawa (October 2000 – January 2001) - Contract

Consultant charged with developing a messaging client for the Palm platform:

- Rapidly assimilated knowledge of the Palm platform and CodeWarrior IDE, and quickly gained an understanding of the operating system's strengths and weaknesses to design a well-tuned messaging client for the Palm device.
- Advised the eXtremeVoice team that a port of the existing Blackberry client would not be appropriate for the Palm platform. Development effort was immediately redirected to the creation of a client application tuned to the Palm OS in terms of GUI, memory usage, persistent storage, and client/server communication.
- Developed several "proof of concept" applications to illustrate various aspects of the messaging client:
 - Client/server communication using TCP/IP sockets (initially developed using a loopback socket while waiting for the required hardware to arrive, as an exercise in socket communication using PalmOS).
 - Use of special launch codes to provide an interrupt-driven interface to the messaging client, and minimize interference with the user's current task.
 - Dynamic GUI creation based on server data sent in WML format, which allows the server to provide new functionality without changing the client code.

Sabbatical (July 2000 – September 2000)

Studied the following technologies:

- WAP/WML using the UP.SDK version 3.2 from Phone.com.
- WindowsCE 3.0 for PocketPC.
- Basics of Web programming: CGI, Perl (using ActivePerl version 616 from ActiveState), ASP.

Nortel Networks (Internet Telephony Application Group), Ottawa (October 1999 – July 2000) - Contract

Consultant for the Internet Call Waiting 3.0 product:

- Teamed with the lead designer to redesign the ICW product from the ground up:
 - Eliminated installation overhead by making the product self-install and self-uninstall, which kept the product download size under a critical 300K.
 - Reimplemented the entire GUI to simplify both the usability and the underlying code, while maintaining a distinctive product identity.
 - Worked closely with the lead designer to retool client/server communications, using Windows threads and messaging.
- Created a "Skins" toolkit using MFC and GDI, to provide complete customization of all graphical aspects of the UI by either the product retailer or end user:
 - Arbitrary bitmap images for dialog backgrounds and buttons, with full transparency and palette support.
 - Hotlinked buttons for Web access, with dynamic cursor support.
 - A simple skin definition syntax, for defining the size, position and bitmap image for GUI elements.
 - Capability to load and unload skin definitions "on the fly" while the application is running.
- Consulted with marketing team members to incorporate marketing requirements and customer feedback into the product, while providing technical advice and "reality checks" as necessary.

Nortel Networks (Internet Telephony Application Group), Ottawa (July 1999 – August 1999) - Contract

Consultant for the HeartBeat project:

- Enhanced HeartBeat, a lightweight Internet application server monitor developed in Visual C++. Integrated requirements from application developers and technical support personnel. Worked closely with application developers to design an improved problem detection mechanism using the WinInet HTTP API.
- Improved alarm notification and logging functionality to provide technical support personnel with a clearer snapshot of application server status, and reduce unnecessary alarms.
- Implemented a numeric-paging feature using TAPI. Provided Internet paging functionality using the Common Messaging Calls subsystem of MAPI.
- Retooled the HeartBeat GUI to improve appearance and usability, and added context-sensitive help.

Javelin EDA, Ottawa (November 1998 – July 1999) - Contract

Windows Consultant:

- Applied knowledge and skill in GUI design and development to create a professional and effective user interface for the DASH/SystemExplorer product, using Visual C++.
- Honed OOA/OOD skills as part of the product architecture team. Increased depth of knowledge in C++.
- Designed and implemented a shape-based class hierarchy that optimizes graphical display performance while minimizing memory requirements through a shape reuse strategy.

Diffraction Limited, Nepean (December 1998 - January 1999) - Contract

Windows Consultant:

- Worked on contract to develop a new feature for MaxIm DL, a Windows product used by astronomers. Quickly assimilated knowledge of the product to create a specialized data editor within the contracted time interval.

Cadence Design Systems, Ottawa (July 1997 – November 1998)

Senior Software Developer and Technical Consultant:

- Designed and developed the GUI for the Maestro Constraint Manager application on Windows NT using Visual C++. Created an innovative “tree in a spreadsheet” interface for displaying hierarchical, multi-valued data using the ObjectiveGrid and ObjectiveToolkit MFC add-ons. Overrode standard MDI application behavior to meet unique customer requirements while maintaining the Windows UI look and feel.
- Provided technical consulting on the Visual C++ development environment, GUI design, MFC, ObjectiveGrid and ObjectiveToolkit, to quickly ramp up all team members and provide ongoing assistance.
- Authored the paper “The Constraint Manager User Interface”, presented in a poster session at the 1998 Cadence Technical Conference.
- Participated in the Cadence GUI Review Board to define a Cadence standard GUI look and feel based on Windows. Promoted the GUI standard to improve usability and reduce customer training and support requirements.

UniCAD Canada Ltd./CCT, Ottawa (October 1993 – July 1997)

Senior Software Developer and Windows NT Project Leader:

- Ensured smooth transition of customers from BNR to the spin-off company UniCAD.
- Designed and implemented the innovative Manufacturing Design Rule Checking feature, which reduced customers’ manufacturing times and defect rates. Received Certificate of Merit.
- Appointed Project Leader for UniCAD’s first foray into Windows NT development:
 - Researched and made recommendations for software development environment.
 - Identified team members and delegated tasks.
 - Maintained the project plan and tracked the status of all tasks.
 - Consistently met predicted task completion estimates.
 - Exceeded marketing requirements for PCB Design Conference and Design Automation Conference.
- Ported several applications to Windows NT:
 - Learned Windows NT/Visual C++ development techniques, and trained team members.
 - Redesigned application GUIs for Windows. Improvements to appearance and usability exceeded marketing and customer expectations.
 - Worked closely with a lead team member to create a multi-platform application architecture. Received a Certificate of Merit for implementing the new architecture to meet the Beta release deadline.
- Received the UniCAD Innovation Award for “creativity in applying innovation to shape a new breed of applications on Windows NT”.

Bell Northern Research, Ottawa (June 1985 – February 1993)

Software Developer for the Sprig PCB Layout Application:

- Worked closely with lead customers and team members to create innovative solutions to technologically specific requirements. Analyzed impact of new requirements on other applications in the tool suite. Coordinated development across team boundaries to ensure rapid deployment of new functionality.
- Initially coded in Fortran for the IBM 360 mainframe. Team leader and sole developer for the Mainframe CPU Cost Reduction project. Identified and implemented several performance improvements to meet a target of 30% mainframe CPU interval time reduction in an 8-month timeframe.
- Demonstrated initiative in documenting several utility APIs and in learning new development tools, which improved efficiency and effectiveness of the entire development team.
- Ported the Sprig application to Unix, as part of the development team effort. Learned several Unix platforms, including RT/PC, Apollo, HP, Sun, RS6000. Rapidly assimilated knowledge of the Unix development environment.
- Learned the C programming language, and integrated C code into the Sprig application as new features were developed.

Formal Education

University of Waterloo: Bachelor of Mathematics in Honours Computer Science, 1985.

Continuing Education

- Object Oriented Analysis and Design with UML, November 15 - 16, 2001
- Palm Programming (refresher), February 4 - 8, 2002
- Java Programming, Sun Educational Services Course SL-275, February 18 - 22, 2002

Security Clearance

Government of Canada Enhanced Security Clearance issued April 19 2002, valid until April 19 2012.