Xia Cai
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SUMMARY

- Senior software engineer with 10+ years experience of designing and developing Windows desktop applications
- Programming expertise in C#, .NET framework 3.5/4.0/4.5. LINQ, WPF, WinForms, ADO.NET, Entity Framework 4.0/5.0 and MS Test
- 3+ years experience in WPF programming and 2+ years experience in WinForms
- 7+ years C# programming experience
- 6+ years experience with FPGA and micro-controller firmware development
- Experience in developing rich user interface and highly responsive multi-threaded desktop applications.
- Strong object-oriented analysis and design skills with deep understanding of SOLID principles and design patterns.
- Good working experience with all phases of the Software Development Life Cycle and Agile development.
- Strong analytical and problem solving skills

Skills

- Proficient in C# 3.0/4.0/5.0
- Expert knowledge and skills in WPF
- Solid working knowledge of Windows Forms
- Fluent in C and C++
- Fluent in FPGA design
- Working knowledge of Matlab
- Familiar with HTML, CSS and Javascript
- Good knowledge of SVN, TFS and Visual Studio

EXPERIENCE

JPMorgan Chase Inc. (2016-06/Present)   Houston, Texas
Senior Associate Developer

- Maintain and develop new features for a large scale equity trading system on the client side, mostly focusing on GUIs using WPF.
- Developed screens that can dynamically load, configure and render different types of UI components on the view according to related configuration files.
- Use TPL and Rx framework to implement highly responsive GUIs.
- Customize UI elements through control template, data template, styles, triggers and behaviors.
- Collaboratively work with server side developers, business analysts, and testers.
- Participate in the peer reviews and design of new screens.

Technologies & Tools: C# 4.0, .NET framework 4.5, WPF, MVVM, Prism 5, Dependency Injection with Unity 3, telerik controls, TPL, Rx, Multi-threading, reflection, LINQ, json, XML, Jira and SVN.

SHC Petroleum Engineering Service Group (2014-04/2016-04)   Houston, Texas
Senior Software Engineer

- Participated in analysis, design and development of an offshore oil well drilling simulation system used to train well drilling operators. The system provides functions to do data collection, visualization and analysis based on the machine-learning and neural networks theory.
- Responsible for building a composite WPF application with Multiple modules using the Prism framework with MVVM pattern applied.
- Developed highly responsive GUI components using TPL
- Used Database-First approach on Entity Framework and LINQ to store data in the SQL Server
- Developed and maintained Unit testing code base using the MS Unit Test and Rhino Mocks.

Technologies & Tools: C# 4.0, .NET framework 4.5, WPF, MVVM Light, Dependency Injection with Autofac, TPL, Multi-threading, LINQ, ADO.NET, Entity Framework, T-SQL, SQL Server 2012, MS Unit Test, Rhino Mocks, and Team Foundation Server.

BPM Microsystems (2002-2013)   Houston, Texas
Hardware Design Engineer(2012-2013)
- Joined new product development team to design digital system and develop embedded firmware.
- Completed FPGA design with Altera CycloneIV.
- Implemented a CRC padding on fly feature to existing FPGA memory data transfer scheme module.Created SDCard flash memory controller in VHDL to support high capacity data storage and streaming between memory and FPGA. SDCard driver development in C++ and documentation. Maintain existing product. Update old version of FPGA design to latest QuartusII version

Senior Device Support Software Engineer (2008-2012)
- Participated in analysis, design and development of a 3-tier WPF desktop application used to manage device algorithms scripts to be applied in the production environment.
- Implemented the customized serialization encryption module.
- Added bad block management CRC support module for embedded operation system device programming.
- Designed and developed a Windows forms test utility used to test the communication between the firmware and the hardware, hardware board functioning and booting test and report test results in word, HTML format.
- Upgrade all old VB version utility to C# WinForms: device algorithm and socket module search engine, PDR generator, flash memory block generator etc.
- Maintaining all existing MCU firmware.
- Collaborated with Sales manager, Service engineers, and/or QAs to solve urgent software issues.
- Participated in design and code reviews.
- Shared best practices and design knowledge with the team, helping improve the product quality.
- Actively involved in interviewing, training and mentoring junior device support engineers.

Technologies & Tools: C# 3.0, .NET framework 3.5/4.0, WPF, MVVM Light 4.0, Dependency Injection with Autofac, windows forms, GDI+, Multi-threading, ADO.NET, SQL Server 2008, C/C++, gcc, HTML, CSS, javascript, Nunit 2.0, Rhino Mocks, and MKS.

Device Support Software Engineer,(2002-2004 2006-2008)
- Developed algorithms to program non-volatile memories stand-alone and embedded (Flash, EEPROM, ST,TI, Atmel, Microchip, infineon, freescale and Micron microcontrollers) used by company's device programming equipment.
- Wrote Bootloader code for ARM7, ARM9 and Cortex M3 devices(STM32, STM8, LPC23xx, TMS570xx).
- Designed and developed an embedded system firmware to control mechanical handlers.
- Develop test utility using Visual Basic.

Technologies & Tools: Visual Basic 6.0, ADO, COM, XML, Access, C/C++, gcc, MKS, Lotus Notes

EDUCATION
University of Houston,
Master of Electrical and Computer Engineering May. 2002
China University of Petroleum, Beijing, China
Master of Electrical Engineering , May. 1998
China University of Petroleum, ShanDong, China
Bachelor of Applied Geophysics(Well logging) , July. 1995