Jessica Claire

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SUMMARY

Senior Developer with over 15 years of experience in the financial services industry.

HIGHLIGHTS

- C++/C, Java, C#, VBA, SQL, Perl
- Environments: Windows XP, 2000, NT, Unix, Solaris, Linux
- APIs/Protocols: FIX, CME iLink, MDP, FIX/FAST, Wombat, TT FIX, XTAPI, Sterling, ActiveX, ICE iMpact, LiffeConnect, Eurex/Xetra VALUES, eSpeed, BrokerTec OMNIAPI, ICAP iConnect, HotspotFX, ArcaBook, ArcaDirect, GL SLE, CBOE CMi, BOX MMTP/HSVF, Tibco, TCP/IP, IP Multicast
- Toolkits: ACE, Boost, STL, .NET, log4cxx, QuickFix, QuantLib, Intel TBB, Google protobuf.
- Other: UML, Visual Studio, SourceSafe, Excel, Visio, SQL Server, BoundsChecker, CORBA, ATL, COM, ADO, XML, SAX, JBuilder, Rose, ClearCase, SourceIntegrity, InstallBuilder

EXPERIENCE

LEAD DEVELOPER   07/2006 to PRESENT

Dave Ramsey | Franklin, TN

- Architected and implemented the firm's trading API.
- It was written in C++, and supported connections to multiple exchange endpoints.
- It was responsible for order/position management, routing, and receipt of quote data.
- The API also utilized ACE and Boost libraries for common tasks such as event handling, managing threads, synchronization and socket communication.
- Was designed to minimize dependencies on 3rd party APIs, making migration to different vendors transparent to client applications.
- It is currently being used in all new client applications.
- Led design and was involved in implementation of a generic n-legged spreading engine.
- Written in C++, it was built on top of the firm's API, and had an attached C# GUI as the front-end.
- Also involved in ongoing enhancements for trader requests.
- The engine has been utilized for trading in CME Eurodollar futures/spreads, equity index futures, eCBOT treasuries and grains, and the market-making program for Eurodollar packs and bundles to realize commission rebates.
- Managed the department's migration from CME MDP to FIX/FAST, using Wombat API as the quote vendor.
- Involved in installation and configuration of the Wombat Linux servers, and implemented the in-house price feeds using Wombat's MAMDA API.
- Led the effort for the technology side of an equity pairs trading system.
- Involved in the design and first pass implementation, which used Sterling API and Excel/VBA as the trading platform.
- Managed the daily tasks of a group of 3 developers.
- Determined project prioritization, resource allocation, scheduling, and requirements gathering for new systems.
- Specified coding standards and led code reviews to improve software quality.
- Also managed the continuous interaction with traders regarding new features and ideas for trades.
- Managed design and development of a front-end used for manual trading.
- The application was written in C#, and provided screens for order placement, book management, position management, and viewing of market data.
- It also made use of a .NET version of the firm's API.
- Was implemented in order to cut costs and overhead by removing the need for 3rd party front-ends.
- Tracked down performance bottlenecks in the firm's API and middleware libraries, resulting in recommendations on improving order transaction latency by 1-2 ms.
- Used Intel Threading Building Blocks (TBB) as the debugging tool.
- Implemented a basket trading system for a floor trade in Excel VBA.
- The spreadsheet used Sterling's ActiveX API and traded approximately 35 - 40 stocks.

TRADING SYSTEMS ANALYST   08/2003 to 07/2006

Belvedere Trading | New York, NY

- Working with a senior trader, implemented a Eurodollar spread trade in Excel.
- The system used VBA and TT XTAPI to quote various Eurodollar futures and spread markets on the CME.
- Once filled, the system performed simple hedging.
- Designed, developed, and maintained an order routing framework, which was used to create the firm's trading gateways to TT, eCBOT, CME, Eurex, EurexUS, eSpeed, BrokerTec, Hotspot, INET, and Arca.
- All gateways were written in C++ and managed orders from multiple gray box trading clients.
- A proprietary database library was used for order management, allowing for high speed transaction processing and persistence.
- Also involved in ongoing trader support and debugging of system issues.
- The direct to market gateways replaced the ongoing monthly cost of various 3rd party systems, such as GL and Portware, and improved transaction latency by removing extraneous server hops.
- Designed, developed and maintained a market data framework, which was used to create the firm's feed handlers.
- All feeds were implemented in C++ and provided market data from eCBOT, CME, Eurex, EurexUS, eSpeed, BrokerTec, Garban, Hotspot, TT, and INET.
- The system distributed data over IP multicast.
- Also developed a C# RTD component that allowed traders to view prices in Excel.
- Involved in development and maintenance of the middleware library used to route messages through the infrastructure.
- Components were developed in C++ and communicated using text and serialized object messages over TCP connections.
- The library also included wrappers for OS specific objects, such as threads, locking mechanisms, files, and sockets.
- Developed an eSpeed smart order router.
- The component received orders from client applications and sent them to multiple eSpeed API connections using a round robin algorithm.
- Was implemented in order to avoid the eSpeed API limitation of having 1 order per price level.
- Developed test components for the exchange gateway servers and client software.
- Using the .NET framework, implemented a GUI used for order placement and book management.
- Used as the front-end tool for certifying direct to market gateways with exchanges, allowing for a more efficient test cycle.

SOFTWARE ENGINEER/CONSULTANT   07/2000 to 08/2003

Capital Markets Consulting | City, STATE

- Involved in the design and development of a BOX market data gateway.
- The system was implemented using FIX on the client-side, and used MMTP/HSVF protocols to communicate with the BOX trading engine.
- Was primarily responsible for coding the MMTP/HSVF modules.
- Developed, tested, and supported a server-side gateway of a single stock futures trading system.
- The system was implemented in Java in a Solaris environment, and included both order entry and market data servers.
- The Tibco API was used as the client-side transport, and the CBOE CMi API was used to communicate with the CBOEDirect trading engine.
- The system made use of Tibco fault tolerant libraries to ensure high availability.
- Involved in the full software development life cycle, from the creation of design/functional specifications and UML class/sequence diagrams, to full-scale production rollout.
- Developed and tested a C++ exchange gateway on NT as part of a futures and options order routing system.
- The system received client messages over server-side socket connections and communicated them to the CBOT A/C/E and Eurex trading engines, using the VALUES API.
- Implemented and tested OLE DB COM interfaces for SQL Server 7 database access.
- Also enhanced and maintained an MFC application to be used as a monitoring and admin tool for the system.
- Designed, developed, and tested a C++ component on Solaris as part of a futures and options order routing system.
- The system converted client FIXML messages received from Oracle AQ to exchange-specific API data, and routed it to multiple trading engines using the VALUES API and CBOT OrderDirect.
- Using Rational Rose, also created UML class/sequence diagrams and design specifications.
- Involved in design and development of a C++ order routing gateway product that communicated with the CBOT A/C/E, Eurex, and Xetra trading engines.
- The system received client FIX messages and routed them to the different exchanges using the VALUES API.
- Also involved in ongoing maintenance and support for customer installations.
- Heavily involved in design, development, and testing of a C++ FIX engine and API on NT.
- Implemented session management, protocol, and message validation logic.
- Enhanced and maintained the asynchronous I/O module, which used Win32 completion ports.
- Also involved in the API port to Linux and Unix.
- Developed and tested C++ Win32 API wrapper classes for the Windows registry and event log.
- Also utilized SAX XML Parser to implement a configuration interface.
- Designed, developed, and tested a C++ price conversion library used to convert display formats to/from tick values.
- Also implemented a COM interface allowing easy use by VB client applications.

SOFTWARE ENGINEER   01/1999 to 06/2000

Rapistan Systems | City, STATE

- Involved in the design, implementation and testing of a C++ software product used to monitor and control warehouse conveyor systems.
- Created UML class and sequence diagrams using Rational Rose.
- The system made use of socket/serial connections and ADO objects for SQL Server access to route packages real-time through distribution warehouses.
- Also involved in the installation, configuration, and on-site support and maintenance of the system.
- Designed, developed, and tested a C++ ActiveX Data Objects (ADO) component of warehouse conveyor system and order picking software.
- Maintained and supported a C++ tools library, which included abstractions for file/database logging, sockets, event handling, and configuration tools such as the Win32 registry.

EDUCATION

Bachelor of Science | Computer Science   1998

Calvin College , Grand Rapids, MI

GPA: GPA: 3.25

SKILLS

.NET, ActiveX, ADO, API, ATL, book, C, C++, ClearCase, COM, conversion, CORBA, client, clients, database, debugging, equity, Excel VBA, Excel/VBA, XML, FAST, features, functional, futures, gateways, gateway, GL, GUI, Intel, IP, Java, JBuilder, Linux, logging, logic, managing, market, access, C#, Excel, exchange, MFC, SQL Server 7, Win, Windows, 2000, NT, Windows XP, middleware, migration, OLE, OS, Oracle, DB, order entry, order management, Perl, coding, Protocols, quality, Rational Rose, real-time, requirements gathering, router, routing, scheduling, servers, sockets, software development, Solaris, SourceSafe, spreadsheet, SQL, SQL Server, TCP/IP, threads, Tibco, trading system, transaction processing, UML, Unix, validation, view, Visio, VBA, VB, Visual Studio, Written