

Rory Winston

Profile

I am a skilled professional with an excellent academic background and technical ability and experience in the telecommunications and financial sectors. My main interests are in software development technologies for the financial sector, cloud computing, algorithmic trading, parallel programming, functional languages, and data mining and computational statistics.

Skills

Java , C/C++ (STL, Boost) ,R, Ruby,Haskell, LaTeX, SQL, XML, FIX/FAST, Matlab, Python , multithreading, sockets, client-server development, market data and ECN (Reuters/EBS/FXAll/FX Connect/360T) integration, financial modelling and pricing and mathematical models , cloud computing, GPU and parallel computing

Experience

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Algorithmic Systems Consultant, ANZ Bank (08/2011-present)

- Responsible for delivering pricing functionality for a real-time FX liquidity provider system
- Integrating ANZ trading systems with ECNs and global liquidity providers using FIX and proprietary APIs
- Writing trading logic using Complex Event Processing techniques
- Optimizing performance of a large and complex multithreaded system

Senior FX Specialist, National Australia Bank — (01/2010 - 08/2011)

- Working on designing and building the next-generation FX pricing and distribution platform
- Technologies used: Java, C++, Mercurial, Spring, Maven, Ruby, R, SOAP, Spring, JMS
- Promoted agile development methodology and implemented continuous build / integration system using Hudson, Maven, Nexus, and custom Maven plugins
- Reengineered a real-time credit exposure calculation engine for FX products, integrating with the Reuters RET banking engine and Credit Risk quantitative systems. Focus was on improving performance and improving the exposure calculation models.
- Designed and developed core components for the next-generation FX payments and deal booking platform, including a pioneering platform linking retail and wholesale FX pricing systems.
- Analyzed deal flow data and produced detailed statistics on deal booking latency
- Working with Reuters RFA (C++/Java), 3000 Xtra, SFC (C++), and integration to ECNs (FX Connect, 360T)
- Documented software designs and worked closely with business users and traders

Senior Developer, FX, HSBC (contract) — 02/2009 - 12/2009

- Senior developer on FX pricing and algorithmic trading infrastructure rearchitecture and rewrite
- Developing low-latency market connectivity APIs
- Working with Reuters RFA data feeds using the OMM data model
- Developing core functionality for the risk management and pricing components
- Developed statistical analysis packages in R and Java for pricing and trading analysis
- Technologies: Java, Spring, R, RMDS (RFA / OMM), Reuters D3000, EBS Live FIX and XML data feeds

Senior Developer, Structured Rates and Derivatives, Royal Bank Of Scotland (contract) — 03/2008 - 01/2009

- Senior developer on core market data distribution and pricing/valuation platform for the structured rates and exotic derivatives business.
- Dealing with large-scale distributed caches and distributed (grid) computation technologies
- Technologies: Java, Spring, Oracle Coherence, SOAP, Reuters real-time market data feeds, Reuters 3000 Xtra

Senior Developer, FX Trading and Execution, Bank of America (contract) – 10/2006 - 02/2008

- Senior developer on front office real-time algorithmic trading FX pricing and liquidity aggregation platform using agile development methodology
- Performance and latency tuning of a heavily multithreaded server application: tuning threading / garbage collection / memory management for optimum performance
- Worked directly with the trading desk and with the quants on prop desk
- Developed a real-time market data interface to the R/SPlus statistical environment, and also interfaced to in-house analytics libraries and models
- Developed automated statistical reports on performance of proprietary pricing models
- Technologies: Java, C++, Boost, Perforce, Tibco RV, JMS, Ruby, multithreading, Weblogic, FIX, Reuters and EBS market data feeds

Technical Team Lead, Global Markets, Barclays Capital (contract)– 11/2005 - 08/2006

- Lead developer on Global Marketing/Front Office Events Management System, managing London-based development resources using an agile development methodology
- Responsible for technical direction of project and reported directly to business sponsors
- Responsible for a team of 4 developers
- Technologies include: Java 5, Oracle 9i, Spring, Hibernate, Tomcat 5.5, Ajax, Prototype, ClearCase, CruiseControl
- Worked on requirements gathering, design and architecture, functional scoping, time/cost estimation

Senior Developer, Global Custody, Royal Bank of Canada (contract) – 03/2005 - 11/2005

- Technical lead on corporate actions automation project. Technologies and systems used include Java, WebSphere, JMS, Oracle, SWIFT, Milvus (book of record system), JMX, XA.
- Gathered requirements directly from business and produced technical and functional design documents. Produced development estimates for project plan.
- Integrated AS/400 mainframe services with C#/Java clients via SOAP
- Consulted on the Cobra asset management project, creating an outsourced funds management system.
- Created an XML schema definition for trade execution records

Solutions Architect, Checkfree Software 10/2003 – 03/2005

Consulted on a centralized bill presentment and payment system for the Saudi Arabian Federal Reserve, linking banks and billers over a nationwide ACH payment network, using J2EE, Web Services, Checkfree i-Series, Oracle, WebSphere, WebMethods

- Developed a UK-based financial consolidation system for Voca (formerly BACS), integrating banks and billers within the UK. Technologies included Java, JCE, x.509 PKI, XML, Oracle
- A B2B electronic invoicing and consolidation project for a large Hungarian telco, linking Hungarian banks and billers, and delivering digitally signed invoices. Involved J2EE, XML, Struts, Oracle, JMS (MQSeries), LDAP, SOAP, x.509 PKI. Project development methodology was heavily MDA-focused.
- Consulted on a centralized financial consolidation system for the Icelandic Central Bank, involving Java, XML, Web Services, WebSphere.
- Contributed to the EU working group panel discussion on digital signatures for electronic invoicing.

Developer, Telewest Communications (06/2001 - 09/2003)

- Developed a Web-based Blueyonder provisioning application, involving Java, Struts, JBoss, Hibernate, Oracle, AS/400, and Sybase.
- Telewest e-billing project (<http://ebill.telewest.co.uk>), which involved writing integration code between CRM systems, LDAP, and billing engines. Involved Java, SolveSE payment engine, Oracle.
- Micropayments processing application for DTV customers, which involved Java (JAXB), XML schemas, and AS/400 databases.

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- Developed a fault-tolerant network statistics analysis project, a heavily multithreaded application involving a Java server, socket-level APIs, SNMP, and MySQL replication.

Consultant, Taurus Technologies, Ltd (03/2000 - 05/2001).

- Utilized C and Java in the development of bespoke applications for the public sector for a Dublin-based consultancy (<http://www.mentec.ie>). Also acted as technical mentor on several topics, for staff and customers.
- Designed and delivered a large safety certificate processing application for the Irish Water Safety semi-state body (<http://www.iws.ie>), using ASP, C++, XML, VB, MTS, and SQL Server.

Research assistant, NUI, Galway 01/2000 - 03/2000

<http://www.nuigalway.ie>

- Developed a real-time Voice-Over-IP project sponsored by Nortel Networks, utilizing C++, low-level asynchronous network programming and wavelet compression algorithms.

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Achievements and Interests

- Developer on the Netling project (<http://github.com/netling/netling>)
- Project maintainer for the Apache Commons-Net project (<http://commons.apache.org/net>)
- Mentor for the Google Summer of Code 2009
- Presented at the Melbourne R Users Group, 2011
- Presented at the R User Conference 2008 in Dortmund and the R User Conference 2009 in Rennes.
- I have contributed articles to various websites and publications, including OnLAMP.com, OnJava.com, java.net, and Linux Journal.
- I acted as technical reviewer on the book titles "Implementing LDAP" (Wrox), "Windows 2000 DHCP" (O' Reilly Press), "Pro App Center 2000", (Wrox), and "Beginning SQL" (Wrox).
- Presented at the Sigs annual Java Expo in San Jose California, in October 1998. Subject: "Win32 Programming with WFC for Java".
- Interests: music (piano and guitar), keeping fit and reading
- Member of the ACM
- Languages: Irish, basic Mandarin

Education

1993–1997: 2-1 B.Sc. (Hons), Computer Science and Physics, National University of Ireland, Galway

1997–1999: 2-1, M.Sc. in Applied Computing, National University of Ireland, Galway

- Topic of M.Sc. thesis – "Real-Time Networking and Signal Analysis for Digital Audio Processing"

2005-2008: M.Sc. Finance, London Business School

- Topic of M.Sc Project: Designing a Neural-Network-based High Frequency Statistical Arbitrage Trading System

Referrals

References available on request