

Brian Foley

brianf@sindar.net

+44 777 5510368

Profile

- Enthusiastic SQL Server and Java developer with 4+ years of experience working in Liquidity and Risk technology in support of the Prime Brokerage business.
- Significant experience with margin calculations and methodologies.
- Senior developer with full development lifecycle experience: project planning, architectural design, development estimates, development, System Testing, UAT and Production Support.
- Strong "Linear Programming" and optimisation skills. Background in mathematics.
- Experienced Transact SQL developer with excellent database design and performance tuning skills.
- Experienced with second- and third-level support of production systems.
- Looking for a lead developer role, with a particular interest in high-performance and high-throughput systems.

Employment History

Merrill Lynch: July 2003 – Present

Received Merrill Lynch's "Special Achievement Award" in May 2006 for significant contributions to my team and pioneering the use of "linear programming" in margin calculations.

Java Developer (AVP): August 2006 – Present

Designed and implemented a new calculation component in an existing web service framework. The calculations were used by multiple business units across the bank, and by external clients.

- Integrated new margining calculation into existing WebSphere framework
- Introduced several development best practices to the team. Initiated benchmarking and profiling of the code to identify performance bottlenecks. Prompted the use of junit and xmlunit to construct unit tests and a custom functional test framework.
- Created detailed technical specifications from business requirements and functional specifications
- Used OO Design principles to model financial instruments and calculation components
- Used Linear Programming techniques to optimise result of calculation
- Used the lp_solve and CPLEX linear programming solvers

Excel VBA / XSLT Developer (AVP): June 2007 – Present

Implemented an excel-based interface to a web service. The excel workbook automatically produced an xml request from a specially formatted input sheet, sent the request to a webservice, parsed the response, and saved the results to the workbook.

- Used VBA for most of the logic, with XSLT for XML manipulation
- Coordinated with the business to create a user-friendly user interface

Database Developer (Senior Specialist): August 2004 – August 2006

Worked as a database developer on a margining system supporting the International Prime Brokerage business. My role was to add new functionality and fix bugs in an existing MSSQL margining system. The system covered all aspects of the margining lifecycle from feed validation and loading, static data maintenance, calculations and reporting.

- Provided development estimates and participated in project planning
- Implemented calculation logic in Transact-SQL stored procedures
- Performance tuning of existing stored procedures and database structure
- Produced reports with Crystal Reports
- Used DTS packages and VB code to automatically validate and load feeds into database
- Developed various reporting functions with ASP.net
- Provided second-line production support for user issues
- Implemented improved development practices across the team

C/UNIX Developer (Specialist): July 2003 – August 2004

Worked on various fixes and enhancements to a Books and Records system for the Prime Brokerage business.

- Implemented bug fixes and enhancements to C background processes on UNIX
- Modified stored procedures on Sybase
- Wrote shell scripts for maintenance and administrative tasks
- Built various reporting and monitoring websites with classic ASP

Internship: June 2002 – September 2002

Analysed legacy Access database used to summarise client positions from disparate systems.

- Planned and implemented migration to SQL Server
- Developed web front end for viewing reports

IUAA Results and Entries: January 2001 – Present

The Irish Universities Athletics Association (IUAA) organises all university-level athletic competitions in Ireland. I volunteered my services to them to help improve their IT infrastructure.

- Designed and developed a suite of applications to manage athletics competitions
- Utilised the open-source LAMP stack (Linux, Apache, MySQL and Perl)
- Developed custom Excel/VBA workbooks to manage athletics meets
- Web-based software to display results and allow online entries

Laboratory for Nanotechnology, Clemson University: June 2000 – September 2001

Laboratory assistant at Clemson University's Laboratory for Nanotechnology. My role was to operate a Scanning Tunneling Microscope (STM) to investigate the electronic and structural properties of Carbon Nanotubes. I gained extensive experience with STMs and developed a good working knowledge of carbon nanotubes and their properties.

My work contributed to several peer-reviewed papers:

- Substrate-interface interactions between carbon nanotubes and the supporting substrate, **Physical Review B**; 2002; 66; 033408. R. Czerw, B. Foley, et al
- Identification of Electron Donor States in N-Doped Carbon Nanotubes, **Nano Letters**; 2001; 1(9); 457-460. R. Czerw, M. Terrones, et al
- STM Determinations of Interface Interactions Between Carbon Nanotubes and Support Substrates; **APS March Meeting 2001**, Washington State Convention Center. R. Czerw, B. Foley, et al

Tools and Languages

Transact SQL	Advanced
SQL Server performance and tuning	Advanced
Linear Programming	Advanced
Java	Intermediate
XML/XSD/XSLT	Intermediate
Perl	Intermediate
UNIX/Linux	Intermediate
Crystal Reports	Intermediate
VBA	Intermediate

Educational & Professional Qualifications

- MCAD: Designing and Implementing Databases with Microsoft SQL Server 2000 Enterprise Edition: November 2006
- **MSc in High Performance Computing**, Trinity College Dublin: September 2002 – September 2003
MSc run by the Department of Mathematics, focussing on implementation of mathematical models in a parallel computing environment. Gained experience writing parallel C programs in an MPI environment on a cluster of 512 processors. Thesis title was: '*Using the Island Model Genetic Algorithm to Optimise a Draughts Board Evaluation Function*'
- **BA Mod in Theoretical Physics**, Trinity College Dublin: September 1997 – June 2002