John Walley

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An enthusiastic and flexible individual with a proven background in technical computing. Looking for opportunities to help derive value from technology by working with like-minded people.

Skills

Software Development

- Programming languages: C#, MATLAB, Java, Python, C, C++, Javascript, VBA
- Build, source control and test tools: Git, Perforce, Subversion, TeamCity, JUnit
- Operating Systems: Windows, Linux
- Development environments: Visual Studio, Eclipse
- Databases: SQL Server, Oracle, MySQL, SQLite
- HPC technologies: CUDA, TORQUE, HPC Server
- Visualisation: OpenGL, WebGL, D3.js, Processing, Google Earth
- Web/Mobile: Android, HTML5, AngularJS, Amazon EC2

Technical Sales

Day-to-day familiarity with the sales process. Uncovering the customer's underlying pain points through asking the right questions. Demonstrating capabilities and successfully guiding them through an evaluation. Developing lasting relationships with customers (internal and external) as part of providing responsive customer service.

Communication

Proven ability to adapt presentations to the technical level of the audience and comfortable presenting to large groups, for example:

- Delivered talk on computational finance to 200 quantitative analysts in Canary Wharf
- Regularly introduce solutions and tools to customers from a wide spectrum of industries using the most appropriate media, including presentations, web-conferencing, phone calls and one-to-one discussion

- Organised an annual exhibit for 14-16 year old students on behalf of MathWorks as part of Physics at Work outreach event

Employment

June 2014 - Present

Software Engineer, Red Gate   Solving production database deployments for users of the most popular release management tools.

Apr 2012 - May 2014

Developer, SunGard   Contributing to the scalable and extensible framework which underlies the Adaptiv Analytics high-performance risk analytics service. Projects have included:

- Tracing just-in-time compiler enabling clients to run existing C# quantitative models on GPUs

Dec 2011 - Mar 2012

Freelance Software Developer   Projects included:

- Designing and implementing algorithms for human motion capture using low-cost inertial sensors, e.g. accelerometers and gyroscopes. This will be incorporated into an iPhone app to aid rehabilitation post knee-surgery
- Developing a bespoke trading tool for an independent trader. The user wishes to test out strategies and ideas quickly and easily without programming. The tool must handle large amounts of data (down to the tick level) across tens of thousands of instruments. Streaming and caching approaches are being evaluated

Nov 2010 - Aug 2011

Quantitative HPC Developer, Fidelity Investment Managers   As a core member of the newly founded applied research and technology team I was instrumental in designing, implementing and introducing quant-based methods to the wider organisation.

Projects typically fell into one of two categories:

- Taking new models from inception to production

- Porting existing applications, typically desktop-based Excel/VBA applications, to a standardised maintainable form

Core numerics were implemented in the high-level language MATLAB. This is the same language the quantitative analysts uses for their prototyping which facilitated quickly moving from an initial idea to a production application. I was closely involved in designing architecture and applying the appropriate design patterns.

Data was sourced from external providers - FactSet, Thomson Reuters, Bloomberg - and internal systems. As part of our process data would be processed and stored in an internal Oracle database. Examples of software interfaces I developed included a Java/JSBC data access layer and a SOAP-based interface to Thomson Reuters' Datastream Web Service API.

I was responsible for source control (Subversion), continuous integration (Team-City) and testing (xUnit-style), I promoted components of agile development to the team. These included developing a minimal viable product to help elicit earlier feedback and generally taking an iterative approach to development with more frequent stakeholder input.

May 2008 - Nov 2010

Application Engineer, MathWorks Worked directly with customers to understand their technical and business challenges. I acted as the main point of contact for customers evaluating and using MathWorks parallel computing tools in the UK. My key responsibilities included:

- Analysing users' problems to determine and implement the best solution
- Developing demos and proofs of concept
- Preparing and delivering presentations to customers and prospects
- Providing feedback to the commercial and R&D organisations and developing relationships both internally and externally

Examples of successful projects I undertook:

- led a team to develop a battlefield simulation tool in response to an interest I identified within our defence customers
- Developed new content for our regular series of one day introductory seminars targeted at new users

2004 - 2008

Research Scientist, QinetiQ Contributed to a diverse range of projects including:

- Research into assessing and improving warship stealth
- Sensor fusion - combining radar and infra-red sensor output to improve situational awareness. Member of team which developed a 10,000 line application in C running in soft real-time. Included a socket-based interface to in-service hardware, i.e. radar on a Royal Navy Type 23 frigate
- Development of cutting-edge object tracking algorithms. Including a LIDAR simulator (C++), Markov Chain Monte Carlo tracking application (MATLAB) which I also modified to run on a cluster, and a Google Earth based visualisation tool (Python)

Summer 1998 & 1999

Research Assistant, Newcastle University Physics Department Data analysis and modelling of a mass spectrometry experiment in Fortran. Joint author of a paper; 'Hyperfine-resolved spectrum of the molecular dication DCL^{2+}'

Education

2002 - 2003

Oriel College, University of Oxford

MSc in Mathematical Modelling and Scientific Computing Modules studied included mathematical modelling, numerical linear algebra, numerical optimisation and distributed computing for computational finance. Dissertation explored the numerical solution of magnetic fluid flow.

1999 - 2002

Emmanuel College, University of Cambridge

BA in Mathematics (2.1) Studied a wide variety of topics. Emphasis on applied mathematics, statistics and theoretical physics.

Interests

Rowing, coxing and running my local rowing club's website

References

Available on request

The canonical up-to-date version of this document can always be found at www.walley.org.uk/john-walley-cv.pdf