

# Curriculum Vitae – Dr. Steve Walsh

## PROFILE

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I am a technology leader with an entrepreneurial spirit. I excel in seeing the big picture for both a software product and the product market fit. One of my core skills is in understanding the importance of the end user and how both the user interface and user experience drives the success of a software product. I love new challenges and am confident to drive things forward in a spirit of teamwork.

## Summary

- Technical Product Owner with experience at driving forward product roadmaps, including all functional, non-functional, business related and technical features.
- Actively involved in technical architecture planning in line with both business roadmap and technical infrastructure roadmap (with a focus on reducing technical debt).
- Very comfortable in communicating effectively with remote teams across multiple continents and timezones.
- Ability to identify, source and recruit top quality talent, hire, on-board, integrate and mentor them as part of a team. I conduct weekly or fortnightly 1-to-1 meetings with all direct reports.
- Ability to encourage best performance from staff, fostering a spirit of ownership and big picture mentality.
- Passionate about learning new technologies, languages, methodologies and systems. My experience illustrates this (iOS & OSX programming, Cloud, REST API, Devops infrastructure, dashboarding, Kernel level C, .NET, Line level processing, Video technologies, SOA, High performance C++, Fintech, etc).
- Strongly opinionated about Agile best practices (we currently do a highly optimised 3 week sprint delivery cycle which I have pioneered and driven) but always willing to improve and learn from team knowledge.

## WORK HISTORY

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**Secure Broadcast Ltd, Belfast, UK**

November 2013 - present

### **CTO**

Firm: Provider of enterprise-grade global TV platforms for the creation, management and distribution of video. Targeting Fortune 500 companies, Secure Broadcast have developed the world's fastest video production platform with built in compliance, management control and multi-channel distribution.

Roles: Manager, Architect, Lead Software Engineer, Product Owner and HR.

Delivered:

- Wrote the majority of our codebase for first 2 years (Objective C, Django, Python, Cloud).
- The design and delivery of a highly successful private cloud scalable video platform with REST API and cross platform client applications for iOS, OSX, Windows, Android and Web.
- The recruitment and management of a top tier development, design and QA team.
- The instantiation of software practices such as Agile, Kanban, Continuous Improvement, Continuous Integration, Software delivery and DevOps infrastructure
- Architected our Devops environment with process around full software life cycle (Development, CI, QA, Beta & Release stages, versioning, Apple certificates, Update processes, etc).
- Wrote our Devops dashboard for monitoring state of all customer instances and SLC state.
- Initiated and drove forward our ISO 27001 / ISO 27018 company compliance certification
- Negotiated and delivered contracts with our Fortune 500 companies.

**SAP (UK) Limited, Belfast, UK** May 2012 - November 2013

***Project Lead, Developer & Senior Researcher***

Firm: Global market leader in enterprise software and software services, SAP specializes in providing Enterprise Resource Planning (ERP) to its massive customer base (both Fortune 500 and SME). It also provides software and services for CRM, PLM, SCM & SRM.

Roles: As a lead developer and project lead on the HEC (Hana Enterprise Cloud) Belfast development team, I have been responsible for the challenges of migrating a small (two person localized in Vancouver) team to a larger cross continent development team with over a dozen contributors in three timezones. I have achieved the following:

- Co-ordinating a manageable standardized source control policy
- Generating and project managing JIRA tasks for the belfast team
- Implementing & coordinating a code branching & review policy
- Driving technical strategy for the overall HEC cloudframe components
- Driving the design and implementation of a packaging/upgradability/versioning and build policy
- Liaising with all stakeholders - i.e. product owner, datacenter customers and development team. I've fostered a good working relationship with all stakeholders in order to prioritize the development roadmap according to customer needs.

As a researcher, I worked on the Hecatonchire Shared Memory project. The objective of this project was to develop a Linux kernel module that would allow memory on remote servers to be treated as a shared resource with minimal overhead (sub 5%). I was responsible for coding at all the various layers (including the linux kernel level, user space API and Qemu-KVM integration). I was also heavily involved in bringing the project to the public domain by driving the open source initiative. I am a listed author on several papers and a patent that have stemmed from this project over the year that I was involved.

**American Dynamics, Belfast, UK** October 2009 - May 2012

## **Senior Software Engineer**

Firm: American Dynamics (which is division of Tyco Security Products) specializes in video surveillance platforms for large scale site security. Recognised as world class, the platform is the security solution choice for most Fortune 500 companies.

Role: As a Senior Software Engineer on the server side team, I was heavily involved in the full product lifecycle (Product Specification sign-off, Functional Specification, Technical Design Documents, Planning, Implementation and QA support) of a Linux based Network Video Recording system. I was personally responsible for the design and development of many critical components/features of the system - for example: the video export API, the gstreamer MPEG generation required for video export, quality assurance tools for production & engineering support and the admin web/windows interface. While working on the interface project, I was fully responsible for the design, development and lifecycle of the product's customer admin interface which required the following features - installation wizard, internationalization for 80 languages, REST API, over 40 feature screens to support configuration of the product. I managed this project's workflow where at one stage, there were 8 developers working on the team.

**NYSE Technologies (Prev. Wombat Financial Software), Belfast, UK** April 2007 - October 2009

## **Software Engineer/Pre-Sales Engineer**

Firm: A world leader in providing end-to-end electronic trading solutions, this technology division of NYSE Euronext specializes in enterprise solutions for real-time low-latency data distribution, exchange solutions and electronic trading platforms.

Roles: I worked in several roles in parallel during my time at NYSE - software developer, pre-sales engineer and onsite consultant. In my time there, I achieved the following:

- Development of sub-millisecond latency feed handlers for European exchanges incorporating message handling, parsing, normalization and publishing onto multiple middleware platforms to be consumed by downstream trading applications.
- Development of real-time Profit, Loss & Risk engine onsite for GLG Partners Hedge Fund, London. This project involved developing a large scale multi-threaded C# .NET solution encompassing MS-SQL Server, MSMQ, TIBCO, Coral8 (a CEP streaming engine), WCF services and a WPF based user interface. The project lasted over one year during which my team of two represented NYSE Technologies as on site development contractors to deliver this application according to customer specifications.
- Working as part of an emerging business unit called Trading Technology, I was heavily involved in Pre-sales onsite and offsite consultancy with multiple top tier investment bank clients (New York, Chicago, Zurich, London, etc) for presales, POC, and client evaluation work leading ultimately to sale of software.
- Development of market data monitoring tools using the proprietary Wombat MAMA API (C++/C/Java) and CEP (Complex Event Processing) technology.

**System-on-Chip (SoC) Group, ECIT Institute, Queen's University Belfast, UK** Nov 2006 - March 2007

## **Research Fellow**

Organisation: The International Centre for System-on-Chip and Advanced Microwireless

Integration (SoCaM) is a research arm within Queen's University focused on the progression of ground breaking methodologies for advanced integrated circuit-based electronics systems.

Role: the provision of a behavioural model in Opnet for verification and performance testing of a novel packet scheduling architecture based on the Weighted Fair Queuing paradigm and optimised for FPGA development.

## EDUCATION

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| 09/2003 – 10/2006 | <i>Ph.D. in Wireless Telecommunications at Queens University, Belfast, UK</i>                  |
| 09/1999 – 07/2003 | <i>B.Eng., Computer Engineering (1.1) at Uni. of Limerick, Ireland - 3.73 / 4.00 (93% avg)</i> |
| 06/1998           | Leaving Certificate Examination, Ireland - 580 / 600 (97% avg)                                 |

## PROFESSIONAL SKILLS

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**Management:** Strategy, Product Management, Agile, Scrum, Lean, Kanban, Waterfall, Team Management, Project Management, HR

**Programming Languages:** Python, C, C++, Objective C, iOS, SQL, Shell, HTML, XML, CGI, CSS, JavaScript, PHP, .NET C#, Java, Perl

**Networking/Telecoms:** TCP/IP, IPv4, Ethernet, Routing, Switching, DHCP, DNS, NFS, PBX, PSTN/POTS, MAMA, TIBCO, RDMA, Infiniband, iWarp

**Apps/System:** Apache, MySQL, Django, REST API, Windows, Linux, FreeBSD, Solaris, UNIX, IOS, Opnet, LLDP, IPMI, Wombat, CEP, Distributed Systems, Cloud computing

## ADDITIONAL AWARDS & ACHIEVEMENTS

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- Patent published for cloud enabled, distributed high-availability system:  
<http://www.freshpatents.com/-dt20150101ptan20150007172.php>
- **Winner of 2000 Lucent Global Science Scholarship Award:** This award constituted representing Ireland at a Lucent Global Summit held in Murray Hill, New Jersey where 50 top students selected from 21 different countries were brought together to prepare the way for technology of the future.
- **Best paper award** at Irish Signals and Systems Conference 2004 held at Queens University, Belfast
- Short-listed based on academic performance for the **Intel Scholarship Program 2001.**
- Fluent in **German**, basic level of **French**, several years of **Mandarin Chinese**.

## PERSONAL ATTRIBUTES & INTERESTS

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- Fast, technical mind, tempered with interpersonal awareness & commercial acumen

- Quickly understands strategic visions for systems, and can articulate the benefits to a wide audience (clients, colleagues, business stakeholders)
- Can work under a broad range of conditions; whether as the sole representative, with a team, in-house, or on the customer's site
- Enjoys challenges and learning new skills, through logical problem solving
- Interests include technology, football, squash, music, cooking and eating.

**REFERENCES** - Available on request