

## Curriculum Vitae – Ralph Bolton

<b>Name:</b>	Ralph Bolton	<b>Nationality:</b>	British
<b>Date of Birth:</b>	1973		
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### Overview

I am a hands-on **dev-ops** systems administrator, middleware engineer, solutions architect, team-lead and mentor able to work in complex, mission critical environments. I'm a proficient programmer in a variety of languages, writing unit and integration testable code, which I've used to automate and simplify deployment, management and monitoring of systems and applications.

I am uniquely able to analyse and understand complex situations, break them down into workable pieces and report to all levels of an organisation in plain language, understood by everyone, regardless of their technical prowess. Gifted with excellent judgement and broad experience, I am also able to direct decisions towards an optimal, practical and deliverable solution. Then also able to follow up and ensure actual resolutions are realised into production.

### Skills

Highly experienced solutions architect/systems administrator. Competent to specify, build and maintain **mission critical Redhat Linux** systems in complex multi-vendor/technology environments. Able to diagnose and resolve issues transcending traditional skills discipline and supplier/client boundaries, owning problems, facilitating solutions and working with specialists in each area as necessary.

Production-focussed with strong skills in creating repeatable, manageable, automated continuous deployment using a variety of tools such as **Puppet, MCollective, Jenkins, CheckMK/Nagios, Git/SVN**, unit and integration testing (e.g. with **Beaker, Rspec**) etc. Have delivered solutions using bare metal, VMs and **Docker**.

Advanced **Perl, PHP** and **Ruby** programming experience, writing readable, testable code for console and web-enabled tools and applications (mostly **Dupal** or **Sinatra** based). Also plenty of skills with other languages/shells such as **Bash, sed/awk**, etc.

Have worked extensively in **web performance management**, improving page load times, reducing overheads, DNS, caching/CDNs, cookies, server responses etc. with instrumentation both synthetically and via Real User Monitoring (RUM).

Established 'middleware' engineer with in-depth knowledge of **Apache, mod\_jk, Tomcat, HAProxy, Nerve, Synapse** and some **Zookeeper**, JMS messaging etc.

Experienced systems manager, with good understanding of security, capacity planning and performance management. Also have experience of massive-scale online 'user management' by **global DNS traffic control**, network **VIP control**, **system/site fail-over** and 'tactical downtime'. Have worked in mixed vendor/technology environments consisting of physical and virtual **Linux, Windows** and appliance based systems at financial, government and new media organisations.

Have worked extensively with **Postgres, MySQL** and a little Oracle in multi-site/server replication systems. Have also worked with NoSQL solutions such as **Redis** (including Sentinels), **Memcache** and **MongoDB**. Have some knowledge of Big Data on **Hadoop**.

Some knowledge of Functional programming in Ocaml. Some experience of embedded development with C/C++ on resource-limited micro-controllers.

Modest experience of SIP VoIP. Some knowledge of the physical aspects of IT, such as environment, cabling, safety etc.

Knowledge of Waterfall and Agile methodologies. Some project management skills, task, time-scale and resource planning. Able to define, track and deliver on numerous tasks across numerous teams and resources.

A modest knowledge of French and German.

### Employment History

**February 2008 - Present: Web and Middleware Engineer, IG** - A devops position providing support, provisioning and management of Apache, Tomcat, Drupal, Postgres, Varnish, Nginx, Jenkins, Puppet and other related products. Providing and supporting mechanised, 'self-serve' packaging and deployment pipelines with test-on-commit and one-step prepared deployments.

Implemented continuous delivery solutions for Ops and Dev teams so that users can take a change from SVN or Git repos all the way through test/UAT and into production, whilst maintaining deployment safety, change control and roll-back capability. Have made extensive use of Jenkins to build CD systems, RPM package building, traditional CI solutions, and a specialised Apache config unit testing system.

Produced a high speed static web asset publishing solution tuned for CDN use to de-risk static asset management. Produced tools to measure and report on web site performance, have worked with website developers and multiple CDN vendors to enhance the performance of public site offerings, including various presentations to wider audiences (technical and non-technical) on the subject to broaden the awareness of performance benefits to the company.

Mentor other team members on Ruby and Perl code quality, unit testing, packaging etc.

**Systems Administrator, [Jane Street](#)** - Providing trade support, configuring, certifying and deploying Fix protocol connectivity to counter-parties, developing and extending solutions to ease day-to-day administration tasks, and providing general systems administration services.

**Solutions Architect, [Yahoo!](#) (Permanent)** - A hands-on technical team lead in Service Engineering solving problems spanning responsibility boundaries across a number of properties including European Front Pages, Yahoo! Answers and Mail, as well as in back office services such as Yahoo!'s CDN, networks and traffic management.

Simplified, refreshed and redesigned numerous components of properties, most notably Yahoo! Answers. Removed legacy, cleaned installations and effected application changes with Engineering and commercial teams to enhance performance, manageability, reliability and monitoring of systems. This has lead to a demonstrably lower operating cost and more flexible architecture with fewer user-affecting incidents.

Created a web based, and CI-integrated tool to analyse web pages and identify potential delivery cost savings. Identified, demonstrated and facilitated operational cost savings globally across Yahoo! in excess of \$5,000,000/year. A part of this work produced a CI-integrated file optimiser for images, JS and CSS files. Both now in use in various Yahoo! properties' around the world.

Frequent participant in "Hack Days" (an innovation capture initiative), prototyping and demonstrating various ideas.

**Systems Architect and Stress Testing Technical Facilitator, [Fujitsu Services](#) (Contract)** - Providing technical guidance, interpretation and solutions facilitation to stress testing activities and providing architecture skills to a large, complex SAP based ERP project at a government department.

**Managing Director, Pre-Emptive Limited (Self Employed)** - Developed and marketed a web search engine appliance product. Primarily performing sales and marketing activities, customer meetings, evaluations etc. and software development work, accounts and financial control.

**WebSphere/Unix Administrator, Logica CMG (Contract)** - Working at a major insurance company customer site, performing various WebSphere and Unix related administration tasks.

**Support Manager, Brokat/Cambista (Permanent)** - Brokat developed a pre-J2EE application server used to provide Internet banking services to early-adopter banks. Cambista later bought Brokat UK and sold a J2EE application for corporate and business banking.

Hired to provide support to financial institution customers on company products and developments (on and off site and helpdesk). Often working hands-on with 'snagging' issues during implementation/test of new multi-tier, multi-vendor, multi-technology solutions or during architecture design stages at customers including **The Co-Operative Bank (smile), ABN Amro, GE Capital, Orbian, first-e, American Express** and others.

**Internet Systems Specialist, Siemens Business Services** - Managed and deployed firewalls and web access equipment for Siemens group companies and SBS customers.

**Graduate Unix Systems Developer, Mitel Semiconductor** - Responsible for company wide systems projects, deployments and site support.

## Education

Degree	Upper Second Class with Honours in Digital Systems Engineering
BTEC	Ordinary National Diploma in Electrical and Electronic Engineering
GCSEs	English Language, English Literature, Mathematics, French, Physics, Chemistry, Economics, German, CDT.

## Hobbies and Interests

I run a bit (occasionally for charity) and cycle a bit too. I'm also a qualified CSIA ski instructor. I enjoy tinkering with electronics, 3D printing and technology projects. Other than that, if I'm not hanging out with my kids, I'm often out with friends, in the pub etc (although more recently, I seem to be spending a lot of time doing all manner of DIY projects).

## Referees

*Please contact me for current referee details.*

*Most dates and some personal information have been redacted. Please contact me for the full version.*