Michael Smith

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SUMMARY

Java Developer and Technical Architect with 11 years commercial experience in large web applications, data feeds and offline processing. Broad knowledge and experience across the development, engineering and operations boundaries.

Specialities

Server-side Java, Scaling, Performance & Stability, Automated Configuration & Deployment, HTTP & REST

Programming Languages:	Java, Python
Databases:	Oracle 9i, 10g, SQL, PL/SQL, Redis
Frameworks:	Spring, Hibernate, Lucene
Distributed:	REST, HTTP, SOAP/WS, RMI
XML:	DOM, SAX, XPATH, XSLT, XOM
Web:	JSP, Servlets, Groovy, Freemarker, HTML, Javascript
Scripting:	Bash, Perl, ANT, IVY
Infrastructure:	Apache, Tomcat, Varnish
Version Control:	Subversion, Clearcase, CVS

EMPLOYMENT

UBS AG

Developer Tools Engineer; Sep 2010 - July 2011

Employed in the Group Technology area of UBS. Working on integration, development and engineering projects for some of the banks SDLC tools (Fisheye/Crucible, Confluence, Quality Center).

Highlights:

- **HP Quality Center Upgrade:** Created a data and application migration plan for an upgrade to a multi-thousand user ALM System. And upgraded custom system-management scripts (perl & groovy).
- **Plugins:** Developed a plugin for Atlassian Crucible that integrated it into the centralised user authentication, authorisation and management services.
- **Customised Installations:** Created installation scripts for builds of Fisheye and Crucible with the UBS integrations automated into them.

Technologies used: ***Java, Axis, Mockito, Atlassian Plugin SDK, Perl, Groovy, SiteMinder, Apache***

Hemscott IR (a Morningstar company)

Freelance Software Developer; Mar 2010 - Jul 2010

Started working freelance, doing 3 projects for Hemscott IR:

- **Webservices Migration:** Completed a strategic project to pull all non-core data

from external webservices (rather than collecting from source).

- **SOA Cache Metadata:** Integrated "Cache-Control" metadata throughout the **SOA** service layer and also propagated up to the web layer.
- **Caching Proxy:** Added caching reverse-proxies(Varnish) using the service metadata to improve performance and stability of all the hosted websites.

Technologies used: ***Java, Spring, JAX-WS, XML, XOM, ServletFilters, Varnish***

Hemscott IR (a Morningstar company)

Director of Technology; Mar 2008 - Mar 2010

Became the *technical lead* for the "Hemscott IR" business unit when Hemscott was acquired by Morningstar. This business produced, hosted and maintained *500+ Corporate websites, "Investor Relations" microsites and data feeds* for a range of listed companies, serving approx *2.5 million dynamic pages/day*.

The main hosting system was made up of multi-tenanted stacks of Tomcats above a proprietary RMI Service layer and Oracle 10g database. This was used to deliver a range of web-based products using financial pricing, fundamental and regulatory news data, as well as client-generated and CMS data.

My role mainly focused on enhancing and maintaining the SOA service layer, giving technical oversight for the other 3 developers in the team, and also giving high level technical support to the team of 20 web developers in Delhi.

Highlights:

- **Circuit Breakers:** Designed and built a framework of circuit breakers that I used to wrap interactions with any external service or database. These helped in decoupling the subsystems, and stopped external outages from propagating throughout this system.
- **Continuity Cache:** Created an innovative "continuity cache" on top of the circuit breakers. This enabled readonly functionality of all websites to continue operating with stale data, when database or external services were down due to maintenance or outage.
- **Automated Configuration & Deployment:** Automated the production deployment and configuration process (using python and bash scripts), and made zero-downtime rolling deployments possible.
- **Webservices:** Integrated several sets of webservices from different business units within Morningstar.
- **News Feed:** Created a feed subsystem for receiving regulatory news from an LSE XML webservice. This received all announcements for any LSE or ISE listed company.
- **Price Feed:** Built a new price feed-handling subsystem for a subset of exchanges. Used Spring, Apache HttpClient and bulk inserts/updates using JDBC. This polled for price data from an XML webservice from Tenfore (a newly acquired Morningstar business).

Technologies used: ***Java, Spring, Hibernate, Webservices(REST & SOAP), XML, Oracle 10g, JDBC, SQL, JMX, Lucene, Python, Bash, Apache, Redis***

Hemscott Group

Technical Architect; Jun 2007 - Mar 2008
Senior Java Developer; Jun 2006 -
Java Developer; Oct 2004 -

Started as a Developer in 2004 and was promoted up to Senior Developer and then Technical Architect over the course of 4 years. Worked on various projects for the retail websites, backend data collection & distribution systems, and performance & stability analysis.

Highlights:

- **Architecture:** Developed and promoted a change to the architectural direction of a major rewrite project, so that it allowed the servers to be deployed as *resilient, horizontally scalable* stacks. This was very successful in alleviating the stability problems that were occurring in production at the time.
- **Performance & Stability Improvements:** Investigated and fixed several performance problems on the Live systems. Did this through a mixture of analysing application and GC logs, profiling, and targeted stress testing.
- **Build Process:** Rewrote a large semi-manual build process into an automated ANT-based one.

  Email Alerts: Significantly improved the throughput of our email alert engine by making the email sending multi-threaded. Implemented this using a thread pool and work queue. Also did the initial investigation that found the cause of the performance problems.

  Advisor Services: Created a suite of new XML services to provide company advisor data for a new product in our web tier. Used Hibernate for the data access, and DOM for building the XML.
- **Calculation Engine:** Rewrote the Rolling Year calculation code after bugs were found in it. Also created a process to document the runtime/dynamic relationships between all of the calculation types.

Technologies used: *Java, Spring, Hibernate, XML, Oracle 9i, JDBC, PL/SQL, SQL, ANT*

Strategic Management Systems Ltd

Software Developer; May 2000 - Oct 2004

Started as a junior Visual Basic developer, but after 1-2 years, lead a migration from VB desktop applications, to using Java web applications for the company's products.

Highlights:

- **CMS Development:** I developed and maintained a content management system for one of the world's largest shipping companies. The system was hosted in our datacenter, and also installed on the ships themselves, which received content updates via satellite email. It was built using Tomcat, Servlets, XML, XSLT, and was integrated with CVS for versioning of documents.
- **Document Crawler:** I also built a multi-threaded web-crawling application to validate and link-check the thousands of documents in the CMS.
- **Mentoring:** For the last couple of years, I mentored and gave technical assistance to the other developers in the team.

Technologies used: *Java, VB6, Tomcat, Lucene, XML, DOM, XSLT, XSL-FO, CVS*

CM2I Software

Junior Visual Basic Developer; Oct 1999 - May 2000

This was a very small French company with just 2 people in the London office. We used VB6 with Access databases to develop custom desktop applications for small businesses.

British Steel

Trainee Engineer; Oct 1994 - Oct 1995

Part of "Sponsored Student" programme before starting University. Shadowed engineers, received

training, and worked on small projects at 4 sites within the steelworks.

EDUCATION

QMW College, University of London

1996 - 1999

BEng Mechanical Engineering

South Park Sixth-Form College - Teesside

1992 - 1994

Physics, Chemistry, Pure Maths & Mechanics at A-Level.

Nunthorpe Comprehensive - Teeside

1987 - 1992

9 GCSE's. Outstanding Achievement Award for Design Technology.

INTERESTS

Running, reading tech blogs, gadgets and motor racing.