# FIONA ANDREA BIANCHI

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Senior developer based in the North West of England with 25 years commercial experience in the IT industry working on several major enterprise projects for clients in UK, US, Canada, New Zealand, and Cayman Isles. Background in Microelectronics Systems Engineering, hardware, system administration, consulting, and software development.

## **Programming Languages**

# Virtualisation/Cloud

Java	VMWare
Ruby	vSphere
Python	Vagrant
JavaScript/Node.js	VirtualBox
C++/C	Docker
Go	Kubernetes
Scala	AWS
Bash	Digital Ocean
Tcl	GČP
Perl	Azure

#### **Configuration Management**

#### **Build Tools**

Git – including github, bitbucket, gitlab, gitea	Maven
Subversion	Grunt
CVS	Ant
Ansible	Make
Puppet	Drone
Terraform	Jenkins
	RPM

## **Operating Systems**

## Methodologies

Linux – Debian, Ubuntu, CentOS, RHEL	Agile
MacOS	Kanban
UNIX – Solaris, HP-UX, AIX, DEC OSF, IRIX	Scrum
Cisco IOS-XE	Waterfall
Windows	

## **Development Tools**

# Databases

IntelliJ MongoDB
Emacs Cassandra
Wireshark Neo4J
JMeter SQL Server
ZAP MySQL
Arduino IDE Sqlite
Microchip MPLAB X-IDE Oracle

## **Hardware**

## Misc Tools/Frameworks

Raspberry Pi Cucumber Arduino JUnit, Mockito, Hamcrest PIC Microcontrollers Nginx Apache Cisco ISR4000 ELK Oscilloscopes Signal Generators Redis Spectrum analyzer Sinatra Foundation Radio License GraphQL Spring

#### April 2019 - Present: Cisco - DevOps Engineer

One of the technical experts and managers developing new certifications for <a href="Learning@Cisco">Learning@Cisco</a>. The work has involved the gathering of exam questions and content from Subject Matter Experts, review, enhancement, and development of these. The technologies covered include Cisco networking, collaboration, IoT, and Security products as well as general software development, configuration management, infrastructure as code, and design patterns and methodologies such as agile. Use of public Cisco documentation and DevNet sandbox environments to develop and verify exam content as well as the construction of lab-based scenarios and example scripts and applications. Also soley responsible for creation of scripts to handle generation of artifacts for use in exam content as well as converting items provided by Subject Matter Experts into a format for bulk import. This helped improve throughput during a critical stage in the project when all items needed to be uploaded to the exam management system within a tight timescale. The role has required the use of extensive development experience and an ability to learn new technology quickly. Technologies have included Kubernetes, Docker, IOx, IOS-XE, Firepower, Meraki, Threat Grid, Umbrella, Webex, Drone, Python, JavaScript, REST, Agile, TDD, and much more.

## November 2018 - April 2019: DWP - Software Engineering

Working as part of the Citizen's Information Service on projects collating benefits and earnings data. Tech stack has included Java, Spring Boot, Mongo Enterprise, AWS, Docker, Kubernetes. Spent a significant amount of time on various proof of concept projects including secure setup with Mongo Enterprise using database encryption, TLS, client authentication, KMS with KMIP (OpenKMIP). Using Go for rapid prototyping and database connectivity to Mongo (over SSL with client authentication). Also working on a solution for a mutual authentication (TLS) to OAuth2 gateway looking at Java (Spring Boot) and Go implementations. This included some work with Time-based One Time Password (Google Authenticator) APIs in both Java and Go. Using Docker throughout this time and moving to Kubernetes for hosting deployed applications.

## July 2018 - October 2018: DEFRA - Java/Node Developer

Contracting through Kainos who are providing consultancy services to DEFRA for the EU Exit preparation. Working on the exports system which has involved development in Node.JS, HTML, CSS, SASS, JavaScript, Java, and database scripting using Liquibase and SQL Server command line. Using git, Confluence, JIRA, and also exposure to Azure Cloud. Local development using IntelliJ and extensive use of Docker. Deployment is using containerization also along with Jenkins pipelines.

#### October 2017 - June 2018: Sky - Java/Scala Developer

Working in the Identity tribe in Sky on various components using technology such as Java, Groovy, Scala, Docker, rancher, Spring, Gauge, Linux (RedHat, CentOS, Ubuntu), ELK, Icinga. Developing new code and maintaining/updating existing systems. Using Agile methodologies, TDD, and gitlab and github for SCM. During the time with Sky I have been developing in and learning Scala along with frameworks such as Json4s, AKKA, AKKA Streams, and the build tool SBT. Development work has used the IntelliJ IDE.

#### January 2017 - September 2017: RealVision - Senior Developer

RealVision provide VOD (Video On Demand) and other content concerned with investment, financial markets, and economics. In essence, Netflix for the financial sector. I worked as part of the development team on the VOD platform using technology such as Java 8, Handlebars, Neo4J, Eventstore, AWS, Ansible Tower, JMeter, event sourcing (CQRS). Duties included backend development, code reviews, DevOps, Ansible scripting, deployments, debugging, etc. Code was managed with git and deployments with Ansible Tower to AWS-hosted instances. The team followed an agile methodology - initially kanban but later scrum with short sprints and regular production deployments. On top of my development role I was solely responsible for setting up and carrying out performance testing as well as starting to look at application security. The development team was distributed around the world with the main office in the Cayman Islands. Daily stand-up was carried out via Google Hangouts and the devteam had regular discussions and communication over slack.

## April 2015 - January 2017: DWP Leeds - Senior Java Developer

Working on several projects on multiple sites in Leeds and the North East. Development using Java, Cucumber-Ruby, and migrating to Cucumber-JVM. I have also been involved with mentoring, interviewing (for Java Developers and QAs), and development of training courses. Development in Java 1.8 with Spring, REST, and related frameworks. Also some work on Node.js prototypes. I developed the server-side prototype for one project using Ruby, Sinatra, and Ruby::Mail with PGP. I have created the Cucumber-Ruby framework for the project and we are now migrating to Cucumber-JVM to meet with organisational standards. Further work on a greenfield project implemented entirely in Node.js with express, mocha, using Grunt as a build tool. Packaging and deployment of applications using RPM, Docker, etcd, and related technologies. Took on the role of DevOps on my current project creating ansible deployment scripts for all environments, managing live builds, monitoring NAGIOS, and configuration of nginx and other services.

# June 2014 - March 2015: Sky - Java Developer

I previously worked with Sky while at loko and returned to the same project in a similar role, that of Java developer. My role has also included environmental support, dev-ops, and work on fault diagnosis and resolution for the companies online VOD system. I have spent a significant amount of time developing monitoring software using HTML5/JQuery/CSS/Ruby. The Ruby development has made use of Rack, Sinatra, EventMachine, and network APIs. I'm also currently involved in refactoring of a Ruby/Cucumber test framework.

## November 2013 – June 2014: The City Secret

My role as a Senior Java Developer working on The City Secret's flagship Hārchvärd product (a back-office trading and portfolio management application) has involved extensive Java 7 development utilising JUnit, Mockito, ActiveMQ, BLAPI (Bloomberg Market Data API), Hibernate, MySQL, XML/SOAP as well as building on previous experience of Python/Jython, Linux, CI using Jenkins. I've also spent some time on UML 2.0 modelling with Eclipse/Papyrus.

As well as my development work I am also conducting an R&D project on hardware acceleration of financial algorithms using Altera FPGAs. This has so far included hardware design using the Quartus II tools, Qsys, VHDL, C compilation with gcc and make, all within a RHEL environment.

#### August 2013 - November 2013: Amplience

Working as a Senior Java Developer on the development of the Digital Asset Management project as part of the Adaptive Media Platform application. Experience of maven, Cassandra, REST, Solr/Lucene, Spark framework, AWS (in particular S3) and Java 7, JUnit, Mockito. My main focus at Amplience was implementing the security and entitlements infrastructure for the DAM application.

#### October 2009 – August 2013: Kit Digital (formerly loko)

In my role as a Lead Developer I have worked on several large-scale Video On Demand (VOD) projects for major content providers and broadcasters. Projects have used agile methodologies and often included close working with the client, their own teams, and third party suppliers and integrators.

From a technology point of view the systems have mainly used Java 6, Spring (2.5 and 3.0), HTML, JavaScript, REST, SOAP, XML, Hibernate, SSL (Client and server authentication), Oracle. I've also had exposure to Adobe DRM solutions, ActionScript 3.0, Silverlight, PlayReady 2 DRM, Tapestry, thePlatform, Vignette, Autonomy.

Development has involved the use of tools such as Eclipse, IntelliJ, Maven, Jenkins (formerly Hudson), Cucumber (both with native Ruby and Java bindings – Cuke4Duke), SOAP-UI, WireShark, SQLDevloper, and miscellaneous Linux/UNIX tools on native environments as well as running under Cygwin. While my role has been essentially that of a Java developer, on several projects I have also taken on the responsibilities of build, deployment, and platform support helping to diagnose environment issues. Platforms are often large scale and make use of virtualisation technologies such as VMWare ESXi, ZFS, NFS, F5, and others.

### January 2005 - July 2009: Cúram Software Ltd

As a Senior Technical Consultant, provided expertise on the companies' SEM (Social Enterprise Management) product to clients in EMEA, NAM and APAC territories working both on-site and remotely with teams across the globe. Major development assignments included consulting for clients in Utah, Canada, and New Zealand. Consulting for a client in Utah, present on-site on many occasions over the course of a year. Provided vital support, mentoring, planning, customer liaison and team leading services during the course of multiple upgrade projects and take-on of new product features and enhancements.

# October 2004 – January 2005: Sweet & Maxwell – Developer (Contract)

The work involved development of an application to transform and correlate legislative documents and articles for storage and display through a content management and internet portal. As well as development involving Java, XML, XSLT, and Oracle, I was also instrumental in highlighting significant architectural and performance issues as well as proposing, designing, and testing several solutions.

## February 2002 - September 2004: Trinem Consulting Ltd - Senior Technical Consultant

I carried out a variety of roles in this company, first and foremost as a Software Configuration Management (SCM) consultant and developer as this was the companies' primary business. However I also worked on several development contracts while with Trinem at the following companies; InterVoice, Equifax, HboS, VCS, NPower, Hutchison 3G. The SCM work was conducted in partnership with CA and was based around their AllFusion Harvest product suite.

### April 2001 - January 2002: Xinetica Ltd, Technical Consultant

During the time I spent with Xinetica I worked on several projects for a clients in the financial sector. The work involved design and development of solutions making use of a wide range of technologies and platforms including VB, XML, UNIX scripts, Perl, Linux, LifeKeeper, Oracle Application Server, LoadRunner, Tivoli. I also worked on analysis of business processes and estimation of porting work.

## July 2000 - April 2001: Rubus Ltd - Technical Consultant

I worked on the design and development of several eCommerce applications using technologies such as Java, XML, ATG Dynamo, Oracle, Solaris. I also carried out investigations into location-based commerce and mobile operating systems, specifically Symbian/EPOC.

# June 1999 - July 2000: PeerLogic Ltd - Software Engineer

The development project I worked on was for an implementation of a CORBA ORB running on Windows, UNIX (AIX, HP-UX, Solaris, SCO, and VMS) supporting C/C++, Java, and Eiffel bindings.

#### January 1998 - May 1999: Valtech Ltd -Technical Consultant

As well as working on several consulting assignments involving design/development of systems using Java, CORBA and other object technologies I also presented many training courses. The topics covered by these included Java programming, Swing/JFC development, and Microsoft Technologies.

#### August 1995 - January 1998: Insignia Solutions - Software Engineer

I initially worked on development and bug fixing for the companies' primary emulation product working on many platforms including Solaris, AIX, HP-UX, SGI Irix, DEC OSF. I started initial investigations into the Java platform before becoming involved in the development of a JVM implementation project.