JOHN DOWNING

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SUMMARY

16 years core Java & related technologies. 12 years in banking (FX). Multi-threading. Memory and performance profiling. Test automation. Tech Lead experience.

EDUCATION( ) & EXPERIENCE

9/2016 – Current
Goldsmiths College, University of London
I am currently studying for an MSc in Data Science at Goldsmiths, with a tech stack including Python, R, MATLAB, Scala, Hadoop and Spark. The aim of my final project is to generate suggestions for song lyrics, and will use approaches from topic modelling (LDA) and deep learning, amongst others.

8/2015 – 7/2016
Royal Bank of Canada Capital Markets | City, London | Contract

At RBC I was part of the FX Distribution team, maintaining an FX Streaming platform as well as migrating components from a legacy system to a REST microservices architecture. Alongside application development, I helped develop a framework for automated integration testing and streamlined the CI/deployment process. I also instrumented the Streaming platform, uploading performance metrics (method call durations, GC pause times, host stats) to InfluxDB for subsequent display on Grafana dashboards.

6/2014 – 6/2015
State Street Global Markets | Canary Wharf, London | Contract

At State Street I was part of an agile team, building components for their FX Accelerated Growth programme. This involved the development of OSGi bundles for their Global Transaction Hub (an ESB, based on Apache ServiceMix), to provide message routing functionality and back-to-back trade generation for FX risk management flows. As with HSBC, I was involved in the development of a test automation framework – this time using the Cucumber framework – which allowed the team to practice ATTD/BDD. I was also involved in pushing forward the development of the GTH platform.

3/2011 – 2/2014
HSBC Global Banking & Markets | Canary Wharf, London | Contract

At HSBC I was technical lead on the FlexRate project – building a greenfield Transactional FX trading platform. Notable achievements included the design of the externally facing REST API, the design of a test automation framework (mis)using the Java Instrumentation API, and more playing about with classloading than should ever be necessary. There was also more emphasis on DDD in this role, for example the identification of key domain concepts and terminology. This was both for external use, since FlexRate clients were often not typical FX market participants, and also within the team - the latter involving ongoing attempts to ensure that all stakeholders agreed upon (and stuck to) a shared way of describing the problem domain and functional requirements.

6/2009 – 3/2011
RBS Global Banking & Markets | Bankside, London | Contract

SKILLS

Current
Recent
Dim & distant

ActiveMQ
Agile
Ant
Apache HTTP Server
ATDD
BASH
BDD
Camel
CVS
ClearCase
ClearQuest
Coherence
Cucumber
CSS
CXF
ATG Dynamo
Eclipse MAT
EJB
FIX
Flex
GIT
Grafana
Hadoop
Hibernate
HTML
IBM MQ
Ice
InfluxDB
Introscope
Javascript
JAXB
JAX-RS
JAX-WS
JBoss
JDBC
Jetty
JMS
JNDI
JQuery
JProfiler
JSON
JSP
JSTL
JUnit
Linux
Maven
MATLAB
Mockito
MySQL
Oracle
OSGi
Python
R
REST
RTC
Scala
Scrum
Solace
Solaris
ServiceMix
SOAP

Spark
Spring
Subversion
SVG
Swing
Sybase
Tibco
Tomcat
UML
Unix
Velocity
Weblogic
WebSphere
XML
XSD
XSLT

For this contract, I was back at RBS (following a break for a Masters degree) and once again working on the core FX RFQ trading platform. Primarily this involved the integration of various ECN channels over FIX/Radianz, as well as integrating internal channels over ZeroC's Ice. The resulting increase in load - on what was by then a legacy application - provided many "opportunities" for investigating threading, timing and memory issues. One upshot being that, with help from Wily Introscope and Eclipse Memory Analyzer, I was able to track down a long-suspected memory leak in the pricing team's API.

9/2009
Goldsmiths College, University of London
MSc Music Mind & Brain (Distinction)

Dissertation: Investigating the relationship between kinematics and preferred beat period in the perception of rhythm.

4/2008 – 9/2008 RBS Global Banking & Markets | London | Contract
Details omitted for brevity, available on request

4/2007 – 4/2008 UBS Investment Bank | London | Contract
Details omitted for brevity, available on request

5/2006 – 4/2007 RBS Global Banking & Markets | London | Contract
Details omitted for brevity, available on request

3/2003 – 4/2006 UBS Investment Bank | London | Perm
Details omitted for brevity, available on request

6/2001 – 3/2003 BuildOnline | London | Perm
Details omitted for brevity, available on request

7/1999 – 4/2001 Quidnunc | London, New York, San Francisco | Perm
Details omitted for brevity, available on request

6/1999
University of Sheffield
BSc Cognitive Science (1st Class)

Dissertation: Modelling a community of neural network agents, and their development of a shared "language" to describe their surroundings.

PROFESSIONAL QUALIFICATIONS

8/2003
Sun Certified Enterprise Architect for the Java 2 Platform

2/2001
Sun Certified Programmer for the Java 2 Platform

LANGUAGES

Spanish (tengo que practicar mucho)
Greek (μιλαω λιγο)

INTERESTS

Music, songwriting, skiing, mind/brain/consciousness