JOHN DOWNING

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github.com/downinja

SKILLS

Current
Recent
Dim & distant

3Scale
ActiveMQ
Agile
Ant
ArangoDB
BASH
Camel
CVS
ClearCase
ClearQuest
Coherence
Cucumber
CSS
CXF
Docker
Eclipse/MAT
EJB
FIX Protocol
Flex
Gatling
GIT
Grafana
Guice
Hadoop
Hazelcast
Helm
Hibernate
HTML
IBM MQ
Ice
InfluxDB
IntelliJ
Introscope
Javascript
JAXB/RS/WS
JBoss
Jenkins
Jetty
JQuery
JProfiler
JSON
JSP/JSTL
Junit
Kafka
KDB
Kubernetes (OCP)
Keycloak
Linux
Maven
MATLAB
Minio
MySQL
OCP
Oracle DB
OSGi
Pact
Pandas
Parquet
Presto
Puppet
Python

SUMMARY

Senior Java Developer with 20+ years' experience in core Java & related technologies – mostly in banking / FX. More recently some crossover into data engineering.

EDUCATION(🎓) & EXPERIENCE

11/2021 – 12/2022
Global Relay | City, London | Perm

At Global Relay I worked on a number of initiatives, including

- an OAuth (Keycloak) PoC for an external client API
- the use of Atlassian cloud APIs to archive Jira data for eDiscovery
- performance testing (Splunk, Gatling) of a Vert.x service which handles opt-outs for WhatsApp Blast communications
- new functionality for a directory service, using a graph database (ArangoDB) and Pact for contract tests.

8/2017 – 07/2021
UBS Investment Bank | City, London | Contract/Perm

At UBS I was part of the EFXDA team, developing a data and analytics platform including *Maestro* – a task coordination framework – and *Tick Tracy* – an event processing pipeline used to derive pricing stack latencies from KDB tick data. Prior to EFXDA, I worked on *Flightdeck* – a precision pricing library which combined spot and interest rate feeds together with markups and controls in order to provide client prices for FIX engines. I also worked with the quant devs to migrate all of this to a new low latency design.

🎓 9/2016 – 7/2017
Goldsmiths College, University of London
Postgraduate Diploma in Data Science

Prior to joining UBS, I took a career break to study Data Science at Goldsmiths. Projects included automatic song lyric generation using ideas from topic modelling and RNNLM, and analysis & visualisation of TFL Cycle Hire journey data.

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

At RBC I worked with the FX Distribution team to maintain a price streaming and trade capture platform. I also helped streamline and automate the build and deployment processes and instrument the platform - uploading performance metrics to InfluxDB for 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 - specifically the development of OSGi bundles to route messages and generate back-to-back trades for risk management flows.

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

At HSBC I was tech lead on the FlexRate project, building a greenfield Transactional FX (micropayments) platform. Achievements included the design of the externally facing REST API (which needed to work for clients who were not typical FX market participants), the design of a test automation framework (mis)using the Java Instrumentation API, and more playing about with classloading than should ever be necessary.

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

This was my third time at RBS, again working on the FX RFQ trading platform – primarily the integration of new channels over FIX and 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 client-side library.

🎓 *9/2008 – 9/2009*
Goldsmiths College, University of London
MSc Music Mind & Brain (Distinction)

At this point I took a career break to study the "cognitive neuroscience of music" (so revisiting some of the ideas from my undergraduate degree, only this time with tunes). 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

Back at RBS and working on the core FX RFQ trading platform – this time integrating a new rate provider into the pricing logic and migrating a legacy application onto the platform. As part of the latter I was able to resolve a major bottleneck in the client-side API by using a more fine-grained synchronization model.

4/2007 – 4/2008 UBS Investment Bank | London | Contract

My second stint at UBS, working on an app which managed trade lifecycles for IRD swaps. Part of a distributed front-to-back architecture, the application used XML over Tibco EMS to communicate with trade capture, analytics and risk/pricing components, and JAXB to convert from XML Schema types to Java DTOs for internal usage.

5/2006 – 4/2007 RBS Global Banking & Markets | London | Contract

My initial contract at RBS, working on their FX Bench platform. This was a typical server-side development role (core Java, multi-threading, Spring, Maven) with most issues revolving around performance, scalability and maintainability. Notably this required some creative approaches to Hibernate and caching, as the result of being constrained to use a legacy database schema.

3/2003 – 4/2006 UBS Investment Bank | London | Perm

Lead developer on the FX Web team, my achievements included a complete redesign of the FX Web (research & analytics) portal as well as the

development of a home-grown interactive SVG analytics and charting solution.

6/2001 – 3/2003 BuildOnline | London | Perm

My role at BuildOnline was to develop collaborative services for the construction industry. This involved extensive use of core Java SE & Java EE technologies and included the development of custom low-level functionality for connection pooling and O/R mapping.

7/1999 – 4/2001 Quidnunc | London, New York, San Francisco | Perm

This was a junior dev role, although I was involved (to varying degrees) in the full development lifecycle - from requirements capture through to rollout & maintenance. Projects were typically Java EE architectures built around Weblogic or ATG Dynamo application servers and Oracle databases.

🎓 *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)

INTERESTS
Music, songwriting, skiing, mind/brain/consciousness