

# Martin McCallion

Senior Java Developer  
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Last Updated: April 9, 2019

## Summary

I am a senior Java developer with 30 years of experience in developing banking and other software. As well as Java I have had used Python, JavaScript, SQL (all the major database platforms), JDBC, Spring, Struts, HTML and CSS. I am a strong believer in the agile approach to development, having worked in scrum-based teams for over five years.

I am a proponent of test-driven development (TDD). I always prefer to write unit tests first when I can. I am experienced with CI tools such as Hudson and Jenkins, Ant and Maven for builds, and version control systems, especially Git, but going back through Subversion to CVS. I like writing documentation.

## Skills

### *Java*

**Java 8:** Used Java 8 extensively on the Home Office project. Introducing it to the Rapid Inquiry Facility. Before that I used it in personal projects. I'm excited about the potential of streams and lambdas and so on.

**Java 7 and Before:** We adopted Java 7 when it became practical to do so. And I used all previous versions from at least 1.3. The biggest change in all that time was the introduction of generics, which allowed vastly increased type-safety for items in Collections in particular.

**Microservices:** My most recent projects were built on a microservice architecture, using RESTful APIs.

**Java EE and Associated Technologies:** Most of my experience before that was in a **JEE** application, including **EJBs**, **JSPs**, **servlets**, and so on. I have used **JavaMail** and of course **JDBC** extensively.

### *Databases*

I am an expert in **DB2 400**, and have experience with **PostgreSQL**, **MS SQL Server**, **DB2 LUW**, **Oracle**, and **MySQL**. Also **Liquibase** for platform-independent schema management.

### *Web Front-end Technologies*

Fair knowledge of **JavaScript**, **HTML 5** and **CSS**. I built a proof of concept using **Twitter Bootstrap**.

### *Scripting Languages*

Fairly fluent with **Python**. **Shell scripting** using **Bash** on **Linux** and in **Cygwin**; Windows **batch files**.

## *Documentation and Presentation*

I believe good documentation is as important as good code. I have worked with **Markdown**, **DocBook**, **Confluence** and other wikis, and of course all the major office tools. As well as writing comprehensive and clear documentation, I have presented to an international team.

## Career History

*Lead Java Developer at the Small Area Health Statistics Unit (SAHSU) of Imperial College; March 2018 - present*

Developer on the [Rapid Inquiry Facility](#) (RIF), an open-source tool for statisticians to study health-related datasets. Led the project from its year-ago state to readiness for beta release, including:

- merged two versions of the code that addressed two different database platforms
- eradicated test failures
- developed new features, such as extending the application to support multiple covariates.
- introduced standard bug-tracking and code reviews

Also wrote a multiplatform installer function in Python, using PyInstaller to create the binaries. Learned a little bit of R.

*Contract: Senior Developer at BJSS, contracted to the Home Office; August 2017 - February 2018*

Helped to build a new system for UK visa applications for the Home Office. Also worked on the Asylum Support project. Java 8 development using RESTful services, deployed in Docker containers. The database was PostgreSQL, adding a new platform to my experience.

*Contract: Senior Developer at UniCredit; August 2016 – May 2017*

Supported the implementation of Misys Payment Manager (MPM) and developed add-ons for it. Helped to get MPM installed in one part of the bank's business, while developing add-on functionality (in Java) for that part. Drove a project to install it in another part of the business, along with the opening of a new branch in a new territory. Developed some utilities to aid in the deployment of projects to their WebSphere environment (in Python). Introduced version control (using Subversion) to the project.

*Senior Software Engineer at Misys; 2011 – June 2016*

Senior developer and scrum master working on [Payment Manager/Message Manager](#), Misys's **JEE** web application for viewing and manipulating financial messages. Worked on all parts of the product, from the **database** right up to the **GUI**. Key contributor to architectural decisions on the direction of the products.

Recently modernised the process of managing customer database schemas, going from four sets of scripts (for **DB2 LUW**, **DB2 for System i**, **Oracle** and **Microsoft SQL Server**) to a single set using the **Liquibase** open-source tool. Wrote comprehensive in-house and customer-facing documentation on the use of the tool; wrote and gave a presentation on its use; and mentored other team members as they became familiar with it. This all resulted in both an improved development process, and easier installation for clients.

Created a proof of concept for a new version of the user interface using a **Twitter Bootstrap**-derived layout, which showed that the UI could be modernised.

Also maintained Meridian Replication, which automatically extracts data from any DB2 for System i schema. This is written in a combination of **RPG**, **CL** and **C** on the **System i** (formerly **iSeries** and **AS/400**). Before leaving transferred this responsibility to an overseas team, which included writing training material and presenting it remotely to people who were unfamiliar with the product.

### *Senior Software Engineer at Misys; 1999 – 2010*

Senior Java development and support engineer working on Meridian, Misys's message-based middleware product, which provides mapping and routing of messages between disparate systems, such as databases, **JMS** queues, TCP/IP sockets, and flat files.

Wrote many features for the product, including its email adaptor, using the **JavaMail** API.

### *Senior Software Engineer at Misys; 1997 – 1999*

Senior developer on the Midas **APIs** project.

The Midas APIs allowed Misys's major international banking product to accept data from external sources.

First developer on this project, seeing the product through to delivery. Designed and wrote major sections of the software infrastructure. Championed the use of **RPG IV** and **ILE** techniques, including **Service Programs**. This enabled a modular structure to be used, giving ease of maintenance and allowing a high degree of code reuse.

### *Prior Experience*

Various development and support roles with BIS Banking Systems, working on Midas. Started as a trainee programmer and rose to software engineer.

## Education and Training

BSc (Hons) Physics – University of Edinburgh

Diploma in Literature and Creative Writing – Open University.

Various professional training courses, including Java, EJBs, project management, agile development with Scrum.

## Voluntary

Maintain the website and other online presence for the British Science Fiction Association (BSFA), a non-profit organisation for SF enthusiasts. <http://bsfa.co.uk/>.