Martin McCallion

Experienced Software Developer
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Summary

I am an experienced software developer, having used mainly Java to build banking, commercial, and academic software. I have also used Python, JavaScript, SQL, JDBC, Spring, HTML and CSS.

I have been out of the the workplace for a couple of years, working on other projects and studying for a masters degree in creative writing. I am now keen to return to software development, ideally on a part-time and remote basis, though I am open to all possibilities.

Skills

Java

Java 8-12 and earlier: Used Java 12 on the last project I worked on. Before that, used Java 8 extensively at the Home Office. Introduced it at SAHSU. Version 7 latterly at Misys, and most versions before that.

Java EE and Associated Technologies: At Misys I built a **JEE** application, including **EJBs**, **JSPs**, **servlets**, and so on. I have used **JavaMail**, and **JDBC** extensively.

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

Databases

I have worked with all the major relational database platforms, including **PostgreSQL**, **MySQL**, MS **SQL Server**, **DB2 LUW** and **DB2 400**, and **Oracle**. Also both **Liquibase** and **Flyway** for platform-independent schema management.

Web Front-end Technologies

Fair knowledge of **JavaScript**, **HTML 5** and **CSS**. At Misys I built a proof of concept using **Twitter Bootstrap**. At SPIKA the front-end development used **jQuery** and **DataTables**.

Frameworks, Tools, and Processes

I am familiar with Spring, including using Spring Boot for recent projects, as well as JPA and Hibernate for modern database access.

I am a strong believer in the agile approach to development and a proponent of test-driven development (TDD). JUnit has been the main tool here, though I have also used Selenium.

I am experienced with Maven and Ant as build tools, and CI/CD tools such as Hudson and Jenkins. In version control systems I prefer Git, but have worked with Subversion and CVS.

Scripting Languages

Fairly fluent with **Python**. **Shell scripting** using **Bash** on **macOS**, **Linux** and in **Cygwin**.

Documentation and Presentation

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

Career History

Masters in Creative Writing; October 2020 - September 2021

In October 2020 I started studying full-time for an MA in Creative Writing at Birkbeck, University of London. I will finish in September 2021.

Tin Lion Software/Sabbatical/Personal projects; December 2019 - September 2020

I took a break after the SPIKA project finished and worked on personal projects. Some study, some writing, increased my knowledge of Python and JavaScript.

I had started looking for new professional challenges when the pandemic came along and threw everything into confusion, as well as affecting the jobs market.

Senior Java Developer at SPIKA; May 2019 - November 2019

SPIKA Limited is a digital agency with clients in many industries. I led the development of the WaterDex project, building a RESTful services-based ticketing system for a client in the oil industry. Developed my understanding of Hibernate and JPA. Also presented on the project and contributed to the in-house blog.

Lead Java Developer at the Small Area Health Statistics Unit (SAHSU) of Imperial College; March 2018 - April 2019

Developer on the Rapid Inquiry Facility (RIF), an open-source tool to help statisticians study health-related datasets. Led the project from a state where the tests were failing, 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 bug-tracking and code reviews
– improved the use of Maven.

Also wrote a multiplatform installer function in Python, using **PyInstaller** to create the binaries. Learned some **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.

Latterly 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.

Prior Experience

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