# Sergei Fedulov

I am a Java Developer with over 13 years of commercial experience, with over 4 year working within the Front Office Investment Banking in Equities area. I have a wealth of experience of building and maintenance real-time Low Latency and High Throughput systems in Java. I have been working in multifunctional teams using Agile/Scrum methodology, delivering all parts of the project lifecycle, including design, development, testing, support and technically managing team of 4 developers.

I have a good academic background in Mathematics and maintain an interest in Statistics, Stochastic Calculus and Financial Mathematics.

**Technologies**

* **Core Java:** JDK 1.0-8.0 (**since 1999**), multithreading, performance tuning, JDBC, Swing.
* J2EE: Servlet & JSP, EJB, JMS (MQ), JMX, JNDI
* Python: (since 2010)
* **SQL:** Sybase, MsSql (T-SQL), Oracle (PL/SQL), DB2 (SQL/PL), PostgreSQL, NoSQL (HBase)
* Spring 1.0-4.0, MyBatis, Hibernate, Hadoop, AWS, LMAX Disruptor
* JUnit, Mockito, Easy Mock, PowerMock, JMock, Selenium
* **Protocols: REST, RMI, Apache Thrift, FIX (QuckFIX), SOAP, Corba**
* **WEB:** JavaScript (AJAX, jQuery), Spring WEB-MVC, XSLT, Tapestry
* Unix/Linux, shell scripting, VMS
* Scala, Pascal (since 1994)
* Agile: XP (2003-2007), Scrum (since 2008)
* Apache Tomcat, Jetty, Web-logic, Maven, Ant, Apache Ivy, Jenkins, JMeter, Liquibase, GIT, SVN, Perforce, CVS

**Employment History**

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| **UBS AG,** London | **Nov 2014 – present** |

**Senior Java developer at Cash Equities** (Contract)

I am working in a front office team of 15 people developing the Order Portfolio Execution Reporting and Analysis system (OPERA), which is the global portfolio trading and order management system for UBS. The system is the third biggest Equity portfolio trading platform on the market, processing over 15K orders and 600K executions per day, working 24/6 worldwide.

I am developing and optimizing the existing trading platform containing over 500K lines of Core Java and T-SQL stored procedures code. Working on interfaces to many external upstream/downstream systems using different transport/protocols including FIX (QuckFIX), MQ, Corba and proprietary binary protocols.

* Successfully delivered low-latency component for fetching the instrument date from the external system over binary protocol in real-time. This was implemented as zero-gc solution based on LMAX-disruptor and UBS proprietary primitive-based collections libraries.
* Designing stock matching strategies allowing matching client instrument-codes between different legacy systems. Developed instrument matching strategies by using different stock identifiers: Reuters-code (RIC), SEDOL, CUSIP, ISIN, SYMBOL, etc.
* I am responsible for the 2nd-line support and the release process.

Core Java, low-latency, LMAX Disruptor, Sybase, QuckFIX, Unix/Linux

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| **Bank of America Merrill Lynch**, London | **Nov 2013 – Nov 2014** |

**Senior Java developer** (Contract)

Java developer in the GMRT Entitlements team, working on development of distributed real-time Java-based entitlements platform.

* Design and the ground-up development the new platform for managing role-based entitlements via RESTful WEB-service based on Spring-Rest. The REST-service is used by many different clients in real-time.
* Successfully delivered the Java JDBC-based solution for migrating data from old system to the new platform.
* Developing the new features of the core Entitlements platform managing and providing entitlements for the bank infrastructure. The platform is an optimized memory-based cache implemented in Core Java using MsSql database via MyBatis, providing Thrift-enabled API.
* Took over the development of the Python client library providing access to entitlements Thrift service.

Java Core, Python, Spring, RESTFul (via Spring), MyBatis, Junit, Apache Thrift, MsSql, Unix/Linux, Apache Maven, Liquibase, JMeter.

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| **Expedia**, London | **Apr 2013 – Nov 2013** |

**Senior Java developer** (Contract)

I worked in Data-Capture Toolkit and Global Deals Engine teams, implementing solutions for generating and providing the travel-deals information and generating data for the main Expedia WEB-site.

* Redesigning and redeveloping the high-scalable multithreaded system for accumulating and processing high-volume travel-deals data in order to achieve higher throughput and stability. The solution was implemented in Java using Amazon WEB-services (AWS) and MQ (SQS), running in Amazon-cloud and using distributed Elastic-search engine as a backend.

After redesign and redeveloping multithreaded code the data-loading processing time improved: from 16 hours -> to 40 minutes.

* Developing the system for accumulating and processing the usage statistics of the main Expedia WEB-site, using BigData technologies. The solution is based on Amazon cloud services, using Map-reduce (Hadoop) framework and S3-storage.

Core Java, Spring, Amazon WS (SQS, S3), Hadoop/Map-reduce, Elastic-Search, TDD (Mockito), Agile, Scrum.

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| **Morgan Staney**, London | **March 2012 – March 2013** |

**Senior Java developer in Equity Swaps** (Contract)

I worked in Equity group, covering front office functions necessary to trade synthetic products, such as Swaps.

* Developing new high-scalable Synthetic Event Management infrastructure system implemented in Java, processing the generation and calculations of the trade allocations, cash-flows in real-time, including reporting system and workflow monitoring. I was responsible for implementing specific ORM persistence framework in Java with DB2 as backend, providing flexible features for very-specific common data-model. This also included the SQL/PL for DB2 database development.

The team was about 16 developers on average, located in different regions.

* Working on support and upgrades of the existing infrastructure and management system, mostly implemented in Java and Perl. I was responsible for the full release lifecycle, including developing, testing and deploying components to production system.

Core Java, Spring, TDD (JUnit, JMock), Apache IVY, ANT, DB2 (SQL/PL), Sybase (Transact-SQL), Perl, Unix shell.

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| **Cisco Systems / Scansafe**, London | **Oct 2010 – March 2012** |

**Senior Java developer**

Developing and improving the performance of the high-scalable distributed system for analyzing, scanning and filtering the network HTTP traffic in real time, having throughput of more than billion HTTP request per day. The system allowed limiting and monitoring the employee’s activity for the corporate clients, providing flexible configuration possibilities. The platform contained multiple server-side Core-java applications, distributed through the different regions in the world.

* Performance tuning and optimizing the memory usage of the Core-Java application, responsible for caching and distributing information about client-specific configurations for and the HTTP-filtering rules.
* Implementing logic for recognizing and filtering application-specific HTTP-traffic (like Facebook chats, photos, games, tweets, etc).

Core Java, Spring Framework, Hibernate, RMI, Maven, TDD (JUnit, Mockito, EasyMock), Oracle, Vertica-DB, Agile, Scrum.

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| **Skype Technologies S.A. / OY**, London | **Jan 2008 – Oct 2010** |

**Senior Java developer**

I worked as a Senior Java Developer in the WEB-backend team.

* Developed system providing information about Skype-user status in real time, with average complexity about 500-600 concurrent transactions per second. Implemented according to specific requirements as stand-alone memory-cache in Java, fetching data from the database based queue.
* I was responsible for delivering Skype Support WEB Knowledge-base system, containing search engine and providing help information about Skype on 11 languages. Implemented on Java based on Oracle database, and Spring-MVC/JSP as frontend.

Java, J2EE, Servlet, JSP, JMS, Spring Framework, Spring-MVC, JUnit, EasyMock, SOAP (Axis2, XFire), Python, JavaScript, Ajax, PostgreSQL, Maven, Tapestry, Agile, Scrum.

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| **The Euro-Baltic Software Alliance AS**, Tallinn | **Feb 2007 – Dec 2007** |

**Analyst, Senior Java developer**

Analyze business requirements and developing middleware Java business applications, messaging, routing and integration solutions.

* Analyze the requirements, design and develop an Electronic Documents Transfer System (EDS). The system was implemented on Java using JMS MQ and has a frontend implemented on XML/XSLT.
* I was responsible for the developing message routing system for Estonian bank "Sampo Pank" (Danske Bank A/S Estonia branch). The system was implemented on Java using JMS technology.

Core Java, Swing, J2EE, JMS, Servlet, JSP, JUnit, JavaScript, Ajax, XML/XSLT, SOAP (Axis2, XFire), Corba, Python, Oracle, MySQL, Ant, Maven

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| **Aqris Software AS**, Tallinn | **Feb 2003 – Feb 2007** |

**Java/J2EE developer / Team lead**

Design and programming of server side Java Web, Wap and SMS services for Mobile Commerce.

* Developing SMS and WAP services for selling content for mobile devices, implemented on Java platform, using J2EE technologies and Oracle database.
* Leading project of development system for geographically positioning the mobile devices, managing a team of 4 developers on this project.

Core Java, J2EE, Servlet, JSP, JMS, EJB, Spring Framework, Spring-MVC, JUnit, EasyMock, JavaScript, Ajax, XML/XSLT, Ant, Maven, SOAP (Axis), Oracle, MySql

**Education**

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| 1999 – 2002 | **University of Tartu**, Estonia  Mathematics / Computer Science  B.Sc (M.Sc equivalent on current program)  Graduated external 4 year program |
| 1987 – 1999 | **Tartu Annelinna Secondary School**, Estonia |

**Certifications**

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| Jun 2007 | Sun Certified Developer for Java 2 Platform, Standard Edition.  (CX-310-027) |
| Dec 2006 | Sun Certified Programmer for the Java 2 Platform, Standard Edition 5.0  (CX-310-055) |