Senior Software Engineer/Developer with almost twenty years of experience across a number of industries: Investment Banking, Finance, Web Security, Online Gambling, Oil & Gas and Public Safety. Good academic background in Mathematics; maintain an interest in Statistics, Machine Learning, Artificial Intelligence and Financial Mathematics.

Java development experience for 12+ years; high-load distributed low-latency massive data processing systems development for last 6+ years. Proven ability to lead by example, mentor junior team members and cooperate with non-IT colleagues.

Technical Profile:

* Full Software Development Cycle (**SLDC**): requirement gathering and analysis, design, prototyping, implementation, quality assurance (QA) organisation, performance testing and optimisation / tuning.
* **Agile** (**Scrum** and XP), RUP, Waterfall. Team work planning and coordination, peer code reviews, team members coaching and mentoring. Test-Driven Development(**TDD**), Continuous Integration(**CI**) and **Release Management**.
* **Java** (from 1.3 to 8) SE/EE. Skills in **Clojure**, **Scala** and **Groovy**.
* **High-load, high-throughput** and **multi-threaded** parallel, distributed and cloud-based low-latency development. Performance analysis with **jMeter**, diagnosis and tuning with **VisualVM.**
* **Oracle**, **MySQL**, **MS SQL Server**: complex **SQL** query authoring and optimisation; **PL/SQL** stored procedures development and tuning.
* Enterprise Integration patterns (EIP), Service Oriented Architecture (**SOA**), **messaging**, **caching**. Server-side and middleware development; **REST**-based **microservices** implementations; **Raft** distributed consensus algorithm.
* Data Modelling, Data Analysis and Presentation, including data denormalisation, complex **data transformation and cleansing**; advanced report building. Holding two patents awarded on innovations in **Data Presentation** and **Data Visualisation** areas. Data Extraction-Transformation-Load (**ETL**).
* Other Languages: **C#**, **Python** (sklearn, pandas, numpy), **Octave/R**, **JavaScript** (NodeJS). Bash shell script, XML/XSL, HTML, JSON, LATEX typesetting system, MD markup, Deplhi.
* Other tools and technologies: **Linux**, **Mac OS** and **Windows**. Apache (Ant, Commons Lang, Commons IO, Log4j, **Maven**, **Tomcat**); Atlassian (**Confluence**, **Jira**); NoSQL: **MongoDB**; Crystal Reports; Google (Guava, **Mockito**); **Hibernate** ORM; **JDBC**; jBPM/Activiti; Java **multithreading**, **collections** and **synchronisation** **primitives**. Java Server Pages (JSP); Java Swing; **Jenkins** CI; jMock; **jUnit**; **Spring** (Core, Integration, MVC, Roo). IDEs: IntelliJ, Eclipse, Visual Studio. Transport (TCP, UDP) and application (HTTP) level network protocols. **Git** and **SVN/Subversion**. **UML**: Sparx Enterprise Architect and Rational Rose. Emacs. **Docker**.

Career History:

FX Java Developer: State Street: London, UK *(August 2017 – present)*

Low-latency Java 8.

* Just Started.

Senior Java / Activiti Consultant: BNY Mellon: London, UK *(May 2016 – August 2017)*

Investment Fund Accounting. BPM (Business Process Management) and Workflow – based systems. Alfresco Activiti, Java 7 and 8, asynchronous multi-threading execution. Oracle SQL and PL/SQL, Spring Core, Spring MVC, Continuous Integration (CI) with Jenkins. TDD (jUnit + Mockito), JMeter, Maven, Git, Vagrant, Docker. Scrum. REST and Microservices.

* Playing a major role in the development of an Investment Fund Accounting system driven by Activiti Business Process Management (BPM) workflows.
* Suggested, designed and developed the project-specific framework for asynchronous task execution in parallel thread pools. This increased overall system throughput in orders of magnitude.
* Created a JMeter-based framework for Performance Testing. The special Vagrant (Oracle VM)- and Docker- based test workbench was developed for Integration and Functional testing.
* Developed a set of third-party integration modules for FIS Sungard data provider.
* Coaching and mentoring of the junior team members. Leading the effort of the Java 8 adaptation in order to simplify code structure.
* Taking a number of voluntary internal courses on Accounting, Finance and Trading.

Senior Java Consultant: Betfair: London, UK *(March 2015 – March 2016)*

Low-latency high-throughput systems based on low-level Java 7 and 8 multi-threading primitives (locks/barriers/phaser, Guava Monitor) and concurrent collections. Oracle SQL and PL/SQL. Zookeeper. Raft distributed consensus algorithm. Continuous Integration (CI) with Jenkins and Thoughtworks Go. TDD (TestNG + Mockito), Maven, Spring, Git, Scrum, peer reviews, mentoring junior team members.

* In an Agile environment, completed transition of the legacy Oracle PL/SQL and Java 7 “traditional” (i.e. built on classical read-process-write cycle) Bet Matcher implementation into Java 8 stream - based architecture built on Raft.
* Was heavily involved in so-called “Multiple Orchestrator” sub-project: enabling a significant increase in the degree of parallelism for the whole Bet Matching system.
* Designed and implemented a project-specific Performance Testing facility.
* Provided coaching and on-the-fly consultations to the junior team members.

Senior Software Developer: ION Trading: London, UK *(July 2013 – March 2015)*

Java 7 and 8, distributed multithreaded low-latency systems. Continuous Integration (CI) with Jenkins, Acceptance Testingwith the Robot Framework. Java Remote Method Invocation (RMI), TDD (jUnit + Mockito), VisualVM, Maven, Git, Groovy, HTML5, CSS3, Velocity, Scrum, Subversion, DevOps, peer reviews.

* Took a major part in re-designing the Query Execution module as a distributed parallel executing subsystem.
* Enhanced the Continuous Integration infrastructure, re-implemented a project-specific Maven plugin. Streamlined the existed Robot Framework modules which increased the test reliability and reduced the test execution time.
* Implemented the Attribute Replacement feature which greatly improved the system’s configuration flexibility and made administering and configuring of the whole product much more convenient.

Senior Fullstack Engineer / DevOps: Fizzback Inc: London, UK (July 2011 – July 2013)

Java 6, multi-threading, Spring (Core, Spring Integration, SpEL, Spring Roo), Hibernate, Activiti BPM, Groovy, jUnit, Mockito, VisualVM, Maven, Domain-Specific Languages (DSLs), Python (Jython), HTML 5, CSS 3, JavaScript (NodeJS, AngularJS), SMS-based mobile communicating, Bash, Mac OS, Linux, Scrum, peer reviews.

* Refactored and enhanced a set of modules enabling a massive multi-threading data processing on top of Spring Integration pipelines. The changes in performance and resource consumption were constantly monitored using jMeter and VisualVM.
* Redeveloped a database access layer, got rid of locking-related problems.
* In addition to the scalability improvements deeply re-developed the Communication and Reporting sub-modules to make them more convenient in configuration and maintenance. Improved the execution time of the whole Unit Testing process (mostly by database-related optimisation).
* Actively participated in front-end HTML/CSS/JavaScript development and tuning.
* Developed good working relations with colleagues from Operations, QA, and Customer Support departments. Combined with good “pure” development work this decreased an average defect response time and improved overall IT team flexibility and confidence.

Senior Software Developer: ScanSafe: London, UK (June 2010 – June 2011)

Java 6, multi - threading, Spring, Hibernate, Tomcat, JSP, Spring MVC, Groovy, jUnit, Mockito, XML/XSLT, jMeter, Hudson, Oracle 11g, Oracle SQL, PL/SQL, VerticaDB, Linux, Sparx EA, Selenium, Agile Development (Scrum), DevOps: Bash (awk, grep), VMWare, TCP and HTTP traffic analysis and optimisation.

* Designed and implemented various parts of a major Web Security system based on a set of parallel running services being executed in a cloud environment. Data structures like tries and algorithm tricks like specifically built hash functions were used to provide the required scalability level.
* Implemented Data Analysis and Reporting modules with sophisticated “on-the-fly” SQL query building. Provided the serious database performance tuning including query re-writing, some PL/SQL programming and index optimisation.

Senior Software Engineer Pitney Bowes: Chatham, UK (June 2008 - Apr 2010)

NET (C#), NUnit, Rhino Mocks, Visual Studio, MS Entity Framework, LINQ, WPF/XAML, Web Services, Subversion, Oracle 11g, SQL, PL/SQL, GIS, ETL, Agile Scrum Development

* Took a key part in major system redesign and redevelopment works managed around the Scrum methodology. Innovative approaches like LINQ and SaaS were also featured in this project together with some elements of functional-based design which allowed to cut down the codebase size; the stability and reliability of the whole system also improved. Suggested and implemented a number of innovations like Finite-State Machine formalisation of business logic and BPM workflow.

Consulting Software Developer Original Solutions: Limerick, Ireland (Dec 2007 - May 2008)

Java 5, multi – threading, Spring, Hibernate, jBoss jBPM, jUnit, Eclipse, Perforce, Ant, Oracle, SQL, PL/SQL

* Provided performance optimisation works; created a project-specific performance testing subsystem. Adapting jBPM library for use in multi-threaded environment was a massive effort but we managed to provide a high level of scalability on our system.

Principal Developer / Architect Kring LLC: Kiev, Ukraine (Dec 2006 - Dec 2007)

Java 5, Spring, JDBC, jUnit, jMock, Eclipse, Subversion, Ant, Oracle, SQL, .NET Compact Edition (C#), NUnit, Rhino Mocks, Visual Studio, GIS, TETRA – based mobile devices communication, TCP/UDP protocols.

* Lead the offshore development project of a major Public Safety and Emergency (PS&E) system development. The project consisted of the server part built on Java (conversion of existing military Terma FlexCCIS Command and Control Information System) and mobile clients based in .Net Compact Framework (C#). Modules for interacting with on-board GPS receivers and specialised communication hardware were implemented along with purpose-built integration testing facility.

Team Lead Vnipitransgaz: Kiev, Ukraine (July 2002 - November 2006)

Java 1.3 and 5, multi-threading, GIS, Oracle Spatial Data Option (SDO), Bentley MicroStation, Intergraph suite, Spring, O/R Mapping, Swing, JDBC, jUnit, jMock, Eclipse, Subversion, Oracle 8i, 9i, and 10g, SQL, PL/SQL, UML, Sparx EA,Rational Rose, XML, MS Office + VBA, XSLT, TDD and RUP

* Formed and led the Software Development Team involved in the major distributed Geographical Information System (GIS MT) for the Gasprom gas transportation company. My role included business process analysis and modelling, requirement analysis, system design and architecting in cooperation with customer’s IT department and other development teams plus work coordination with partners.
* Inside team (up to eight people) was responsible for planning development efforts for team members, technical oversight and coaching as well as hands-on project work. The project has exceeded the customer’s expectation and was recommended for adoption in all Gasprom child companies. Two modules developed by our team were honoured with special patents of the Russian Federation.
* Designed, developed, maintained and enhanced the data collection, verification and migration ETL - like system for Utility and Oil & Gas - specific databases (both spatial and attribute parts). The changes in the business process proposed by our team and backed by our software enabled a productivity increase in 3-4 times compared to old approach.

IT Department Head “PrivatInvest” Retail Bank: Ukraine (January – June 2002)

Banking Operation – specific software

* Implemented the major expansion of the bank: from single office to 22 offices distributed around the country. Created and expanded the IT department, introduced a number of innovations that allowed us to complete the technical tasks in only 5 months – a month ahead of original schedule

Software Engineer Lost Boys: Amsterdam, The Netherlands (June - Dec 2001)

Java 1.3: JSP, EJB, JDBC, jUnit, Oracle 8i, SQL, PL/SQL, custom-built performance measurement tools

* Was selected to be part of the special fine-tuning and performance optimisation team – a distinction given to the best developers at the Company.

Analyst Programmer KPMG Consulting: Kiev, Ukraine (Nov 1997 - May 2001)

MS SQL Server, MS Office (particularly MS Access), VBA, Delphi, Crystal Reports, IIS + ASP, XML/XSLT

* Planning, design and technical implementation of various projects devoted to the budgeting process of the state and local budgets. The projects were credited with eliminating 2 months from the budget development cycle and greatly expanded the analytic capabilities of the Ministry of Finance of Ukraine.

Software Engineer KiGIS ltd: Kiev, Ukraine (March 1996 - November 1997)

* Various short-term software development projects.

Specials:

* Holding Engineering Diploma with Honours in Electrical Engineering (National Technical University of Ukraine KPI), Kyiv, Ukraine: Sep 1990  March 1996‑
* Profiles on StackOverflow <http://stackoverflow.com/users/900174/l-yara> LinkedIn <https://uk.linkedin.com/in/ylyakh> and GitHub <https://github.com/l-yara>.
* An active member of Data Science London, London Java Community (LJC) and London Clojurians user groups.
* Currently following Coursera’s Data Science Specialisation. A full list of completed courses includes “Functional Programming Principles in Scala”, “Principles of Reactive Programming (in Scala)”, “Design and Analysis of Algorithms” (Parts 1 and 2), “Introduction to Artificial Intelligence (AI)”, “Machine Learning (ML)”,“Introduction to Finance”, “Financial Markets”, “Model Thinking”, “Computational Investing”, “An Introduction to Operations Management”, “Quantum Mechanics and Quantum Computation”, “Introduction to Genetics and Evolution”.
* Sports: volleyball (former player of “CBPhoto” Irish Division 1 team, now playing in Kent amateur league), sailing (former pupil of Kiev Olympic School).