Senior Software Engineer / Tech Lead with over eighteen years of experience across a number of industries: Finance, Banking, Web Security, Oil & Gas, Online Gambling, Utilities and Public Safety.

More than five years of Team Leading experience, proven ability to lead by example, mentor junior team members and cooperate with non-IT colleagues.

Recent Java development experience for 10+ years; extensive involvement in high-load distributed low-latency data processing systems development for last five years.

Skills / Experience:

* FULL SOFTWARE DEVELOPMENT LIFECYCLE (SLDC): requirement gathering and analysis, design, prototyping, implementation, quality assurance (QA) organisation, performance testing and tuning.
* JVM - BASED LANGUAGES: **Java** (from 1.3 to 8 in production) SE/EE, currently studying **Clojure**. Basic knowledge of **Scala** and **Groovy**.
* DEVELOPMENT PROCESS ORGANISATION: **Scrum** (and other **Agile** flavours), 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**.
* PERFORMANCE DIAGNOSIS AND OPTIMISATION: high-load parallel and distributed low-latency systems development. Performance analysis with **VisualVM**, **jMeter**; runtime **performance tuning**.
* RELATIONAL DATABASES (RDBMS): **Oracle**, **MySQL**, **MS SQL Server**; complex **SQL** query authoring and optimisation; **PL/SQL** stored procedures development and performance tuning.
* ENTERPRISE TECHNOLOGIES: 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, EXTRACT-TRANSFORM-LOAD (ETL): including data denormalisation, complex **data transformation and cleansing**; advanced report building. Holding two patents awarded on innovations in Data Presentation and Data Visualisation areas.
* OTHER LANGUAGES: **C#**, some **Python**, **JavaScript** (Node.js), **R/Octave**. Shell Script, XML/XSL, HTML, JSON, LATEX typesetting system, MD markup language.
* OPERATION SYSTEMS, TOOLS, TECHNOLOGIES, LIBRARIES: **Linux**, **Mac OS** and **Windows**. Apache (Ant, Commons Lang, Commons IO, Log4j, **Maven**, **Tomcat**); Atlassian (**Confluence**, **Jira**); EasyMock; 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 IDEA, Eclipse, Visual Studio. **VisualVM** diagnostic tool. Source Code Control with **Git** and **SVN/Subversion**. UML with Sparx Enterprise Architect and Rational Rose. Emacs.

Career History:

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

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, took a major part in re-implementation of legacy PL/SQL-based Bet Matcher application to the new Java-based system. The latter is being gradually transformed from Java 7 to Java 8.
* Heavily involved in so-called “Multiple Orchestrator” sub-project: a major development effort which enabled a significant increase in the degree of parallelism for the whole Bet Matching system.
* Designed and implemented a project-specific Performance Testing facility.
* Heavily involved in transition of the current Oracle-based “traditional” (i.e. built on classical read-process-write cycle) Matcher implementation into a stream-based architecture based on Raft distributed consensus algorithm. Codebase is also being transformed from Java 7 to Java 8.
* Provided training and on-the-fly consultations to the junior team members.

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

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

* Re-designed the Query Execution module as a distributed parallel executing subsystem.
* Enhanced the Continuous Integration infrastructure, re-implemented a project-specific Maven plugins. 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 Software Engineer: 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, Visual VM, Maven, Domain-Specific Languages (DSLs), Python (Jython) SMS-based mobile communicating, 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).
* 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 (July 2010 – June 2011)

Java 6, multi - threading, Spring, Hibernate, Tomcat, JSP, Spring MVC, Groovy, jUnit, Mockito, XML/XSLT, jMeter, Hudson, Oracle 11g SQL & PL/SQL, Linux, Sparx EA, Selenium, Agile Development (Scrum), peer reviews

* 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 (July 2008 - April 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 with some elements of functional-based design allowed to cut down the codebase size; the stability and reliability of the whole system also improved.

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 optimization 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: Kiev, Ukraine (December 2006 - December 2007)

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

* Lead the offshore development project of a major Public Safety and Emergency (PS&E) system development. The system gathers real-time information about positions of PS&E resources (paramedics, police crews, fire brigades etc.) and their state; this information is communicated to the operation HQ via specialised messaging infrastructure.
* The project consisted of the server part built on Java and mobile .Net - based clients. Despite unusual team configuration and inconvenient technology set the system showed good performance and reliability achieved with a purpose-built 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.

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

Banking Operation – specific software

* Assisted in the major geographical expansion of the bank – from one single office to 22 offices distributed around the country. Upgraded the IT infrastructure with migration to the new Operational Day software and establishing the communication framework.
* Created, expanded and strengthened the IT department, introduced a number of innovations that allowed us to fulfil the technical tasks on bank expansion 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 optimization 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

* As a staff Programmer/Analyst took part in planning, design and technical implementation of various projects to improve the budgeting process of the state and local budgets. The projects were credited with eliminating 2 months from the budget development cycle and with greatly expanding the analytical capabilities of the Ministry of Finance.

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 (Kiev Polytechnical Institute, Kiev, USSR September 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>. Active member of Data Science London, London Java Community (LJC) and London Clojurians communities. Attended London Scala User Group (LSUG).
* Currently following Coursera’s Data Science Specialisation. A full list of completed courses includes Functional Programming Principles in Scala, Design and Analysis of Algorithms, Introduction to Artificial Intelligence (AI), Machine Learning (ML), Introduction to Finance, Model Thinking, Computational Investing, Quantum Mechanics and Quantum Computation, An Introduction to Operations.
* Sports: volleyball (former player of “CBPhoto” Irish Division 1 team, now playing in Kent amateur league), sailing (former pupil of Kiev Olympic School).