

# SERGEY KHOLODYAKOV

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## ABOUT

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I'm a software engineer with a background in systems engineering, scalable architectures, cloud technologies, micro-services and data management.

I'm proactive and self-motivated developer, energetic and driven by engineering challenges which add maximum value to company and users. I will gladly be a part of a professional team that values honesty and good-natured communication.

My last experience was with a distributed team around the world and I fit into the team perfectly. I can work completely independently and solve by myself almost all problems in the entire development cycle, starting from planning and ending with providing and supporting product releases.

At the same time I know where communication is really needed and how to get the most out of it.

I'm currently living in Russia and am a resident of this country.

I consider remote work as well as relocation.

## EXPERIENCE

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### Esprow

Aug 2017 – Jun 2020

Senior Java Software Engineer

- **Financial Web Service** *The Global Exchanges & Markets Simulation Platform*
  - Updated old project by migrating the technology stack from Java 7, Struts, jdbc, Ivy to Java 13, Spring, POJO, Hibernate, Maven.
  - Secured the service connections over SSL (https, wss).
  - Designed and implemented the architecture for providing secured web socket connections (wss) for unlimited cloud VM instances (digital ocean) that might be created dynamically.
  - Implemented OAuth 2.0 flow and integrated with third-party service (Auth0).
  - Designed and implemented the architecture for managing user data to comply with GDPR.
  - Migrated the web project from MVC to RESTful API, integrated with SPA, prepared YAML docs.
  - Developed distributed cache layer as a NoSQL data store using Redis.
  - Contributed to high-load exchange simulators and enhanced performance in multi-threading architecture within Actor Model.
  - Accelerated the Matching Engine of matching orders and sending corresponding notifications.
- **Financial Application** *Enterprise Testing Platform Studio*
  - Contributed to application OSI model to support of various Financial Protocols, like FIX, JPX Arrowhead, BATS BOE, ITCH & OUCH, Swift, NYSE Pillar. Developed different transport layers for protocol messaging, especially Kafka, ActiveMQ, RabbitMQ. Developed JPX Arrowhead Session layer. Enhanced FIX Session layer.
  - Built API for interacting with some part of the application based on JMS and JNDI.
  - Build many plugins for an interaction-heavy app based on RCP framework. Designed many structured data models based on EMF framework and developed editors for such models.
  - Contributed to application licensing mechanism based on License4j library. Developed handlers for floating online and static local licenses.
  - Investigated and fixed memory and GDI leaks. Adjusted Garbage Collector. Adjusted Log Replay functionality for endless work of endless records in files.
  - Set up Jenkins jobs for different RCP-app builds of different systems. Extracted CLI app (GUI-less) based on main application.
- **Internal Services** *Internal infrastructure*
  - Created and configured maven repositories based on JFrog Artifactory.
  - Introduced code review process and configured JetBrains Upsource tool.
  - Helped in promoting the company's products, helped to conduct the products demo and POC processes. Collaborated with clients to solve complex questions and issues.
  - Contributed to company web site migration from PHP 5 to PHP 7. Enhanced reset password functionality.

### SPB Splat

Mar 2016 — Aug 2017

Java Developer

- **Online gaming server** *Server for betting and bookmakers*

- Contributed to development of high-load web server. Implemented DAO layers (jdbc, Oracle), Cache layers (JBoss Cache, EhCache), Services layers (Java Beans).
- Contributed to dividing the system into microservices. Developed distributed service for aggregating similar requests from many clients using Spring and HessianProxy.
- Contributed to replication system to multiple server nodes based on notification and changes services.
- **Management Application RCP client for bookmakers**
  - Integrated app with new microservices. Designed and implemented mechanism for automatically switching from requests for microservices to the core server.
  - Developed a mechanism for releasing and then restoring resources in the case of a lack of memory.
  - Developed an integrated alarm system with email notification in case of any exceptions or specific events.
  - Contributed to JMX Bean injections for remote control of application.
  - Refactored and analysed the old code

## Individual entrepreneurship

Software Developer

Feb 2014 — Mar 2016

- **Freelance projects**
  - Integrated a billing system (ChargeBee) for the online shop (tomcat, java, mysql).
  - Build a raw content parser and content modifier (Python, http.client).
  - Build an automatic monitoring of the system based on SQL queries with notification to Jira (MySQLdb, Python, Cursors).
  - Extended CMS (joomla) functionality by adding an addon (PHP, js).

## EDUCATION

<b>University of Information Technologies, Mechanics and Optics</b>	St. Petersburg, Russia
Specialist of Computer/Information Technology Administration and Management	2009 - 2014

- **Graduation project** Simulator for crawler robot behavior
  - Built a 3D environment for simulation and analyzing the behavior of crawler robots with camera sensor in case of task to locate the desired object using different resolution of camera sensors and different model specifications (Python, OpenGL, OpenCL, OpenCV, Open-Source 3D Engine).

## SKILLS

- Java Core & EE · Concurrency & Multithreading · Java Streams · JVM · GC
- Spring Framework · Struts · RESTful API · Security & OAuth 2.0 · SSL · Tomcat · Jetty
- Cloud & Micro services · AWS Lambda · Message Brokers & Queues · OSI model · Actor model
- SQL · Hibernate · JDBC · POJO · NoSQL · In-Memory Data Structure
- JS · jQuery · Bootstrap · Websockets · Node.js
- RCP · OSGi · EMF · Cross-Platform Apps · SWT & JFace

## ADDITIONAL SKILLS & TOOLS

- Python · Kotlin · Windows · Linux · Jenkins · Maven · Ivy · JFrog Artifactory · JProfiler & VisualVM · SVN · GIT · Upsource · JIRA · YAML · Financial Protocols