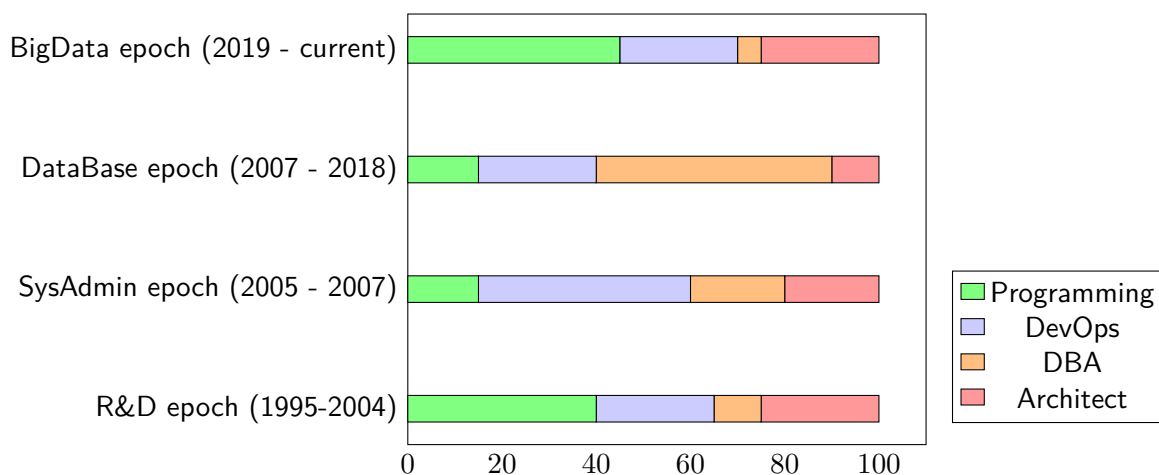# Sergey Kryazhevskikh

System Architect and Software Engineer

BigData Engineer. System Architect. DevOps. Software Developer. Research Engineer. DataBase Administrator.

«Quick start» CV review

Certification

Scala	Scala-ReactiveX: Programming Reactive Systems: 2021
BigData	Yandex Big Data Specialization:
	Big Data Applications: Real-Time Streaming: 2020
	Big Data Applications: Machine Learning at Scale: 2019
	Big Data Analysis: Hive, Spark SQL, DataFrames and GraphFrames: 2019
	Big Data Essentials: HDFS, MapReduce and Spark RDD: 2019
OCP	Oracle Certified Professional: 2015 – 11g, 2012 – 9g
OCA	Oracle Certified Associate: 2008 – 9i
Linux	Novell Certified Linux Administrator: 2010,
	Linux Professional Institute, LPI-I: 2008

Perm – Russia

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in *sergey-kryazhevskikh-8128b2108* • ⬡ *soliverr* • ⬡ *soliverr*

Education

1995–1998 **Research Engineer**, *Vyatka State University*, Kirov, *Higher professional*.
Postgraduated study in "Automatic control systems"

1990–1995 **Engineer**, *Vyatka State University*, Kirov, *Higher*.
Diploma with honors in "Electronic-Constructor-Technologist Engineer of electronic computing systems"

Experience

Actual valid skills

2020–current **Senior BigData Engineer**, *«BIA Technologies» LLC*, St. Petersburg (remotelly), Russia.
Design, deploy and maintain on-premise Hadoop based cluster. Development business software applications used Spark, Kafka and more.
Detailed achievements:
- Technical Leader
  - Popularization of a wide range of open-source technologies in the company: holding seminars and training courses
  - Conducting graduation projects of students
  - Writing wikies and technical documentation: Sphinx-doc
- IT Architecture
  - System architecture desing of Hadoop-based DataLake
  - Migration of data storage paradigm from DataWareHouse and DataLake to LakeHouse
  - Designed and implemented streaming processing subsystem: Kafka, Debezium, Spark Structured Streaming, Delta-tables
  - Designed and implemented data ingestion subsystem: Airflow, Celery, DASK
  - Hadoop and Kubernetes integration
  - Designed and implemented data governance and data lineage subsystem: LinkedIn DataHub, Apache Atlas
  - Designed and implemented data quality and data assurance subsystem: Great Expectations, Apache Griffin
  - Designed and implemented data virtualization subsystem: Trino; DWH intergation: PolyBase
  - Designed data orchestration subsystem: Alluxio
- Software development
  - Developed of Kafka connectors on Scala and Python
  - Developed streaming storage table model based on Delta-tables (delta.io) on Scala
  - Developed DAG factory and DAGs for Airflow
  - Developed buisiness models for realtime data processing using Pandas, DASK, pySpark
- Data Bases
  - Participated in projects for MS SQL Server
  - Integrated PostgreSQL cluster: Patroni
- DevOps and System administration
  - Maintained on-premise Hadoop clusters
  - Implemented DevOps techniques to support Hadoop clusters: Ansible, GitLab
  - Developed own Ansible roles, Ansible and GitLab integration
  - Migration of production Hadoop cluster from Hortonworks Data Platform to vanilla Hadoop
  - Docker Swarm and Hadoop integration: Portainer
  - Implementation of monitoring system for Kafka and Hadoop: Prometheeus, Grafana, AlertManager, ElasticSearch, Filebeat, Kibana

2018–2020 **Chief Software Developer**, *«PIT» LLC*, St. Petersburg (remotelly), Russia.
Process management, architecture design, software development in one gas and oil industry project
Detailed achievements:
- Technical Leader
  - Technical leading and small team management: 5-12 developers
  - Project management with Jira, Trello, Ora.pm
  - Implemented Scumban technique
  - Implemented Scrum Pocker technique
  - Promoted startup spirit in developers team
  - Project planning using MSProject, GanttProject, TaskJuggler
  - Implemented test-based release management aproach
- IT Architecture
  - Desinged and implemented Hadoop-based calculation clusters: Hadoop HDFS/YARN, ZooKeeper, Spark, Hive, Kyuubi Thrift JDBS/ODBC Server, Alluxio
  - Architecture desing for a distributed calculation subsystem to migrate from Oracle Model
  - System architecture desing for all software components of the projects
  - Participated in technical meetings with customers, written technical documentation
- Software Development
  - Migrated task planning process from Jira to Ora.pm
  - Developed Oracle PL/SQL packages
  - Reengineered Oracle PL/SQL packages for a Spark standalone cluster
  - Migrated Oracle Model code to PySpark/Spark-SQL and Pandas
  - Implemented testing environments: pytest, Postman, Postwoman, Apache JMeter, Taurus/BlazeMeter, Selenuim
  - Participated in the projects on C-sharp
  - Implemented DevOps techniques: Gradle/Groovy, LiquiBase, Jenkins Pipeline, GitLab Pipeline, Bash, Shell, PowerShell scripts

2018–2020 **Chief Software Developer**, *«PIT» LLC*, Continue.
Detailed achievements:
- Oracle DBA
  - Maintained Oracle RDBMS for datawarehouses and business analytic systems
  - Analyzed and tuned Oracle database perfomance
  - Used statistical language R for a historical perfomance analysis of an Oracle RDBMS
  - Installed and maintained database monitoring system: Oracle Enterprise Manager, Oracle dbConsole
  - Optimized complex SQL-queries
  - Analyzed and tuned Linux servers perfomance for Oracle RDBMS
  - Analyzed and tuned AIX servers perfomance for Oracle RDBMS
- DevOps and System administration
  - Implemented Infrastructure-as-Code paradigm: Chef
  - Implemented CI/CD: Jenkins, GitLab
  - Migrated development environment from Bitbucket, TeamCity to GitLab, Jenkins
  - Implemented monitoring system: Influx DB, Grafana, Telegraf, Kapacitor
  - Dockerized company's IT infrastructure: Docker Swarm, Portainer

2017–2018 **Senior Consultant and Software Developer**, *«IBS» LLC*, Moscow (remotelly), Russia.

Architecture design, software development and maintanance of a large information systems. Detailed achievements:

- o IT Architecture
  - Designed and implemented high-load fault-tolerant application cluster
  - Participated in technical meetings with customers, written technical documentation
- o Software Development
  - Planning in Jira
  - Developed Oracle PL/SQL packages
  - Developed Oracle BI forms
  - Participated in the projects on Java
- o Oracle DBA
  - Maintained Oracle RDBMS and Oracle Exadata for datawarehouses and business analytic systems
  - Analyzed and tuned Oracle database perfomance
  - Installed and maintained a database monitoring system: Oracle Enterprise Manager
  - Optimized complex SQL-queries
  - Analyzed and tuned Linux servers perfomance for Oracle RDBMS
- o DevOps and System administration
  - Maintained a broad portfolio of services: Oracle RDBMS, Linux servers, Oracle Weblogic, Oracle BI, Oracle Access Manager, Oracle Unified Directory, Corosync/Pacemaker, Apache Tomcat, Apache SOLR, Apereo CAS, Apache HTTP server, Nginx
  - Implemented testing and monitoring environment: LXD, OpenStack, Juju, GitLab, Jenkins, Zabbix
  - Promoted DevOps techiques: Ansible, Juju, Puppet
  - Implemented high loaded fault-tolerant clusters for business Java application: Corosync/Pacemaker, Nginx, Memcached, Apache Tomcat
  - Built a failover load balancing cluster for Oracle BI: Oracle Weblogic
  - Implemented LifeRay clusterization with EhCache distibuted cache.
  - Implemented LifeRay cluster SSO using Apereo CAS with Kerberos for Windows/Linux workstations

Fundamental skills

2014–2017 **Leading Software Developer**, *«Pro IT» LLC*, Perm, Russia.

Architecture design, software development and maintanance of a middle level information systems

Detailed achievements:

o WriteMe
  - Planning in Jira
  - Developed a data model to store data of various data sources, developed PL/SQL package interface for the data model: Oracle PL/SQL, Oracle DataModeler
  - Developed ETL-loaders: Talend Open Studio, Java
  - Developed specialized ETL-loaders using Oracle PL/SQL and Talend Open Studio for variuos data sources: CSV, XML, Excell files, Internet services
  - Developed analytic reporting modules: Oracle analytic SQL, recursive SQL
  - Participated in the projects on PHP

o Oracle DBA
  - Analyzed and tuned Oracle database perfomance
  - Installed and maintained database monitoring system: Oracle dbConsole and Oracle Enterprise Manager
  - Optimized SQL-query
  - Analyzed and tuned Linux servers perfomance for Oracle RDBMS

o DevOps and System administration
  - Maintained XEN virtual servers for application testing purposes
  - Deployed decentralized monitoring system using Oracle dbConsole, XMPP/Jabber
  - Implemeted DevOps techniques using Puppet and Foreman
  - Designed an infrastaructure for automatic deploying ETL tasks: JobScheduler, incron

2013–2014 **Leading Software Developer**, *«Prognoz» CJSC*, Perm, Russia.

Develop banking analytic systems, ETL-loaders for Teradata datawarehouse.

Detailed achievements:

o WriteMe
  - Developed ETL-loaders for Teradata data warehouse: Teradata SQL
  - Maintained ETL tasks for Teradata data warehouse: Informatica
  - Developed analytic reporting modules: Teradata analytic SQL, recursive SQL

o Oracle/Teradata DBA
  - Analyzed and tuned Oracle database perfomance
  - Analyzed Teradata database perfomance: Query Captiring Database (QCD)
  - Created SQL-query analyze methodology using Teradata System Emulation Tool (SET)
  - Installed and maintained Teradata Express on Linux virtual servers
  - Supported testing environments: data export/import with Teradata BTEQ and Fast-Export/FastLoad utilities

o DevOps and System administration
  - Maintained XEN virtual servers for application testing purposes
  - Installed and maintained Teradata Express on Linux virtual servers
  - Supported data export/import with Teradata BTEQ and FastExport/FastLoad utilities

2007–2013 **Senior Database Administrator**, *«ER-Telecom Holding» JSC*, Perm, Russia.
System engineering, deploy and maintain Oracle RDBMS and Linux servers of a Billing and Business Analytic systems.
Detailed achievements:

- o Team Leader
  - Team management: about 3 DBAs
  - Interaction with other company's departments
- o IT Architecture
  - Designed a central warehouse to keep database statistics for more than 200 Oracle database instances
  - Developed statistical principles for a historical perfomance analyzing of an Oracle RDBMS using R language
  - Desined and deployed the backup strategy for Linux servers and Oracle databases: Bacula, Oracle RMAN, exp/imp, Oracle DataPump
  - Migrated Oracle databases to the SAN environment: EMC VNX, IBM XiV. Deployed ASM instances, Oracle ClusterWare nodes. Tuned SAN multitier architecture with SSD-disks for Oracle RDBMS
  - Designed a fault tolerance strategy for company's billing system: Oracle standby, Oracle DataGuard, Oracle GoldenGate
- o Oracle DBA
  - Maintained company's billing system in 24x7: more than 200 Linux servers and Oracle database instances
  - Designed analyzing and tuning regulations for a high loaded Oracle databases. Written technical docs: Mediawiki, Redmine, Confluence
  - Used statistical language R for a historical perfomance analysis of an Oracle RDBMS
  - Analized and tuned SQL queries: Oracle Outlines, SQL Profiles
  - Designed and deployed a central datawarehouse for Oracle Business Intelligence(BI) subsystem
- o DevOps and System administration
  - Maintained more than 200 Linux servers and Oracle RDBMS instances
  - Designed and implemented DevOps techniques using Puppet automation tool
  - Builded rpm- and deb- packages for business application
  - Implemented a Jenkins continuous integration system for building packages and unit-testing
  - Designed and deployed decentralized monitoring system using Oracle dbConsole, MMONIT, Jabber/XMPP
- o Software Development
  - Developed PL/SQL package and application to support code installation into Oracle RDBMS: PL/SQL, Shell
  - Developed Oracle packages to automate routine DBA tasks: user and object audit, database monitoring, control statistics gathering, control of database users

1995–2004 **Research Engineer**, *«Otdelenie Razrabotki System» JSC*, Kirov, Russia.
Research and delvelop automated real-time control system using fuzzy logic approach
Detailed achievements:
- Deploying PostgreSQL and MySQL RDBMS as an archive storage system in real-time monitoring and control systems
- Setting out the framework and standards for big data processing in real-time control systems
- Designing Linux-based embedded systems
- Deploying and supporting Linux servers for internet and intranet: WWW, MAIL, FIDO, FTP, etc
- Designed real-time control system for embedded x86 controllers: C, Assembler
- Developed fuzzy controler and PID controller for heat power engineering objects
- Designed the distributed SCADA (System Control and Data Aquisition) system: C, Perl, Tcl, Java, InfoBus, XML/BML/RDF
- Participating in design process of a programmable logic controllers (PLC)
- Designed a schematic circuit diagrams: PCAD
- Designing a printed circuit boards: PCAD
- Designing a working construction documents: AutoCad
- Developed and deployed the Fuzzy Control System in energetic operating companies
- Devloped a fuzzy control algorithm for embedded x86 programmable logic controller: C, Assembler
- Researching efforts in knowledge based systems with Prolog, CLIPS, FuzzyCLIPS

Languages

English	Intermediate	*Good reading and writing in English in the scopes of activities, a few practice in spoken English*
German	Basic	*Basic level of reading in German*

Computer skills

Network	TCP/IP, DNS, DHCP, LDAP	Docs	DoxyGen, Sphinx, LATEX
Software Dev	C, Tcl, Perl, Python, Shell, CVS, Git, Subversion, Bazaar, Automake, Autoconf, Gradle, Liquibase, (C-sharp, PHP, Java, Scala)	OS	Windows Server, Linux, FreeBSD, Solaris
RDBMS	Oracle, Teradata, PostgreSQL, MySQL, Interbase, FireBird	DevOps	OpenStack, Juju, Foreman, Chef, Puppet, Ansible, Fabric, Active Directory, eDirectory

Oracle Services Oracle BI 11g, Oracle Access Manager, Oracle Unified Directory, Oracle Internet Directory, Oracle Weblogic

BigData Hadoop HDFS, YARN, Spark, pySpark, Spark-SQL, Hive, LLAP, ZooKeeper, Kafka, KafkaConnect, Ambari, HBase, Sqoop, Pandas, Kyuubi, Atlas, Trino, Kudo, Airflow, GreatExpectations, Apache Griffin, Debezium, Delta, Kubernetes, DASK, Celery, Redis

Interests

Hiking trip	Summer and winter hiking and skiing trips
Kayaking	Kayaking and water trips
Astromomy	Amateur of astronomy
Folklor	Singing russian folk songs, playing russian folk musical instruments
Linux, Open Source	Open source project participating, Linux popularization

Additional information

- o Preferred desktop OS: Ubuntu/Debian Gnu Linux
- o Preferred text editor: Vim, VisualStudio Code
- o Preferred typesetting: LATEX
- o System approach to problem solving,Critical thinker and problem-solving skills
- o Educability. Self-directed and self-motivated with the ability to take charge or play a supporting role