

IVAN ZAITSEV

📍 Redwood City, CA

Software engineer and architect with **13+** years of professional experience. Specializes in JVM-based backends for high-loaded distributed systems. Significant experience in **ML** (python, scala), **Big Data** (OLAP, SQL, Map-reduce), **frontend** (JS/TS, Web). Excellent skills in problem-solving, communication, work ethics, successful project delivery. Passionate about learning, algorithms, performance optimization and roguelike video game development.

Contact Info

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Core Competencies

JVM

Software architecture

Distributed systems

High load

Machine learning

Big Data & OLAP

Functional programming

Concurrency

Algorithms

Data structures

Performance

Proficiencies

Languages: java, scala, kotlin, python, javascript

JVM libs: Vertx, Spring, Hibernate, JPA, JDBC, JMS,

Servlets, AspectJ, Spark, Hadoop, Quartz, log4j,

slf4j, slf4s, ehcache, Jackson, JMX, concurrency,

Akka!, scala parsers/combinators, coroutines, jmh

Python libs: numpy, scipy, pandas, keras, tensorflow,

matplotlib, flask

Js libs: react, redux, mobx, d3, phaser, immutable-js,

lodash, jquery

[NO]SQL: Vertica, Clickhouse, PostgreSQL,

MySQL, H2, SQLite, MS SQL, Cassandra, Voldemort, Memcached, Redis

Messages: Rabbit MQ, kafka

Tools: linters, static analyzers, testing harnesses, profilers, memory analyzers,

load testers, CI, containerization, orchestration, etc.

Secondary: Golang, Type-script, C++, ASM, PHP,

Pascal/Delphi, Basic,

Matlab

💼 Professional Experience

2020
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2015

- **Sr. Software Engineer** @ RevJet Inc. 📍 San Carlos, CA

- Technologies: java, scala, kotlin, spark, spark ML, vertx, kubernetes, docker, AWS, mysql, vertica, clickhouse, cassandra, kafka, etc.
- created **ML product recommendation pipeline** that was crunching terrabytes of raw data and served up to 1k rps with response time SLA < 20ms
- created **Recommendation Engine**, that managed 100+ user-defined hierarchical models and served up to 1k rps with model response time under 20ms
- partially designed and worked on **Analytics pipeline**, that provided ETL and OLAP capabilities for billions of events per day, with petabytes of historic data and real-time reporting capabilities

2015
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2012

- **Sr. Software Engineer** @ Lifestreet Media Corp. 📍 San Francisco, CA

- Technologies: scala, tomcat, vertica, clickhouse, memcached, golang, python, scikit-learn, scipy, numpy, javascript, phaserjs, webgl, AWS, kubernetes, docker, etc.
- redesigned and implemented **OLAP backend**, with 10x speed for some queries and extendable architecture
- created a tech stack from scratch and then successfully lead a team of 3+ people building and delivering **Playable ads** (a web-based replicas of mobile games)
- participated in development and optimization of an **ML-based RTB bidder**, a high-loaded service with billions of requests per day, reduced RAM requirements 4x

2012
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2010

- **Software Engineer** @ Cogniance 📍 Kiev, Ukraine

- Technologies: java, EJB 3, spring, hibernate, hadoop, ehcache, maven, postgres, h2, voldemort, JMS, quartz, etc.
- as a part of a medium-sized team (6-10 software engineers) redesigned **ETL pipeline** for Ad Server to handle the increased traffic (up to one billion impressions per day)
- designed snowflake-like scheme in Postgres, sql-generating backend service, real-time analytics
- using extensive knowledge of the whole system was able to fix the most tricky bugs, optimize performance of critical parts, and provide L3 support

● Additional Experience

- Full stack web developer, LLC Prodex, 2007-2010
- Software / Database engineer, Computing Center of Donetsk National Technical University, 2005-2007

🎓 Education

2010

- **MS in Computer Science** 📍 Donetsk, Ukraine
Donetsk National Technical University

💻 Online Courses

2018
2018
2018
2014
2012

- **Deep Learning Specialization (5 courses)** @ deeplearning.ai / Coursera
- **Applied Plotting, Charting & Data Representation in Python** @ University of Michigan / Coursera
- **Introduction to Data Science in Python** @ University of Michigan / Coursera
- **Machine Learning** @ Stanford University / Coursera
- **Principles of Reactive Programming** @ École Polytechnique Fédérale de Lausanne / Coursera