

# Ivan Tsukanov

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## SKILLS

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- 11 years with JVM technologies, 8 years with scala, 5 years spark, 2 years with cats/ZIO
- Libraries: zio stack (zio1, zio2, zio-kafka, zio-streams, config, logging, etc), akka stack (actor, persistence, streams, http), typelevel stack (cats, cats effect, fs2, http4s, doobie), quill, trace4cats, tapir, testcontainers, and many others
- APIs: REST, GQL, gRPC
- Storage systems:
  - Relational DBs: Postgres, MySQL, Oracle, MsSQL, Redshift
  - NoSQL: MongoDB, Cassandra
  - Distributed file systems: hdfs, s3, gs, adl/abfss
  - Others: KairosDB, Kafka, ClickHouse
- Clouds: GCP (kubernetes), AWS (emr), Azure (HDInsight)

## EXPERIENCE

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### Scalac

Remotely

*Senior Scala Developer*

10/2021 – 01/2023

Outsource for Conductor. Building products that simplify interaction with kafka. Getting info about kafka clusters, management of kafka clusters, building tools for testing user's kafka pipelines. My role – transforming business ideas into backends.

Stack: ZIO1/2, gRPC (zio-grpc), GQL (caliban), quill, postgres, kubernetes, kafka

### DecisionMapper

Remotely

*Senior / Team Leader Scala*

12/2017 – 07/2021

Outsource for a big international company (level of S&P 100 by revenue). Was responsible for a big data part of an analytic platform:

- inner architecture of the big data module, almost 200 different spark jobs (adding new jobs, changes with backward compatibility for existing ones, etc)
- integration with third party systems (spark jobserver, databricks, SmartyStreets, etc)

- spark jobs optimizations, spark session tuning. The best optimization reduced execution time from 50 minutes to 5 seconds
- helped DevOps with spark infrastructure (spark sessions configuration, yarn cluster stability, etc). Helped ML python team with spark related questions
- scala/spark team management (candidates' test tasks, tech interview, onboarding process after hiring, mentoring)
- production issues debugging and troubleshooting

Key achievements:

- significantly improved development culture. Added to the mandatory stages of development: git feature branches, code reviews, autotests, CI builds
- increased test coverage to ~95% including integration with Mongo, S3, Postgres, etc and rest api based third-party services. Almost any spark job could be developed on a developer machine locally (minimum bugs, fast time-to-market)
- added an ability to execute scala and python spark jobs inside one spark session (reduced infrastructure costs, increased performance)
- ported several new features and bug fixes from unreleased spark versions into our codebase

## **Telepado**

Remotely

*Senior Scala Developer*

02/2017 – 08/2017

Worked on the application for paid consultations provision (education, legal advice, etc).

## **2GIS**

Novosibirsk, Russia

*Middle / Senior Scala Developer*

11/2014 – 11/2016

The largest and most interesting projects with my participation:

- application for accessing and analyzing data stored on Hadoop (business events) by using SQL-like queries. It processed about 10TB of data per day. Based on Spark.
- application for business statistics validation. There was a set of rules defined by the business team that statistics has to satisfy. Based on Spark.
- anomaly detection system. Collecting data from Kafka into a time-series database. Searching for anomalies (using an algorithm from our ML team on R-language). Sending notifications. Based on Spark Streaming, KairosDB, akka, spray.

My role in these projects was: initial requirements gathering and formalization; decomposition into small tasks, project management in Jira; development and support.

## **BARS GROUP**

Novosibirsk, Russia

*Middle / Senior Java Developer*

07/2013 – 11/2014

Project for the Novosibirsk's government. Digital services for citizens.

## **Diasoft**

Novosibirsk, Russia

*Junior / Middle Java Developer*

12/2011 – 07/2013

Support and development products from the banking sector.

## **CERTIFICATIONS**

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Machine Learning

<https://www.coursera.org/account/accomplishments/certificate/4539H5J8HN5T>

## **PORTFOLIO**

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Testing trading strategies on historical data - <https://github.com/itsukanov/stockcharts>

Distributed tracing - <https://github.com/itsukanov/tracing>

## **DEVELOPMENT CULTURE**

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I hope you agree with me that the following is important:

- using feature branches to keep the main branch clean and always working
- using code reviews to share knowledge about the project and keep the implementation as simple as possible
- using CI for running tests and deploying via a one-click button
- aiming to 100% tests coverage

## **EDUCATION**

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**Novosibirsk State University (NSU)**

Novosibirsk, Russia

*Physics Department, Master of Science (M.S.)*

2010