Alexandr Petrov

Russia (*open to relocate*) | [mail@gmail.com](mailto:mail@gmail.com) | https://[www.linkedin.com/in/user/](http://www.linkedin.com/in/user/) Visa sponsorship required

# Summary

* **5+ years of experience** in building massively scalable systems (mostly using **Java and Kotlin**) both from scratch and diving into an existing codebase.
* Currently I’m a backend developer (Java, Kotlin) in the e-commerce startup.

# Skills

**Languages**: Java, Kotlin, SQL, JavaScript, PHP, C++

**Technologies**: stateless microservices, AWS, Spring, Hibernate, Protobuf/gRPC, GWT, AOP, Redis, SOLR, JUnit, Maven, Gradle, perf, async-profiler, WebDriver, Qt

**Tools**: TeamCity, YourKit, VisualVM, IBM TMDA, jconsole, jhat, Jenkins/Hudson

**Source control**: Git

**OS**: MacOS, Ubuntu

**Databases**: PostgreSQL, MySQL, Clickhouse

**IDE**: IntelliJ IDEA

**Application servers**: Jetty

**Work experience**

**Accomplishments**:

* performed major version upgrade for backbone technologies such as Java and GWT
* designed and implemented rolling upgrade for the most highly loaded service
* designed and implemented new shard routing scheme
* fixed an issue in database driver that cut down CPU load by 30%
* designed, implemented and proposed new queue scheduling scheme that reduced latency by a factor of 10

**Software Engineer**, ACME, Russia **Jan 2015 — present**

*Projects:*

1. Shard routing revamp (Java, Kotlin, PostgreSQL). Mostly as a single developer, the design was thoroughly discussed with team leads and CTO.

*Accomplishments*:

* implemented and supported rolling upgrade for the most highly loaded service
* designed and implemented new shard routing scheme. Reduced memory consumption by 90%, shortened release time and significantly reduced database load
* made new design stateless, breaking the release dependencies
* reduced database load caused by data migration between the shards

1. Integration for partnership (Java, Kotlin, PostgreSQL). Team of two.

*Accomplishments*:

* led technical communication with partner development team
* redesigned data importing service from scratch
* proposed a new queue scheduling scheme. Used queue lookup to improve latency

1. Data denormalization (Java, PostgreSQL). Team of two.

*Accomplishments*:

* denormalized one of the most sophisticated data structure in the project
* came up with the design for spreading the load on database caused by denormalization of shared data

1. New auth metadata service (Java, Kotlin, PostgreSQL). Team of three.

*Accomplishments*:

* separated auth logic from monolith app into another service
* used AOP to keep common code in one place

1. General

*Accomplishments*:

* used pg\_buffercache to trace issue with well indexed query being slow
* used perf utility to trace database driver issue and made a talk on it
* implemented webhook service from scratch

**Software Engineer**, Oceanic Airlines, Russia **Jan 2014 - Dec 2014**

*Projects:*

1. Smart house system (Java, GWT). Team of 5+.

Accomplishments:

* implemented an SVG redactor for sensors in the rooms

1. Food ordering service for trains (Java). Team of 3. Accomplishments:

* implemented REST API for the service

**Software Engineer**, Ultor Mining Corporation **Jun 2012 - Dec 2013**

*Projects:*

1. QA automation

Accomplishments:

* implemented testing framework using WebDriver and PageObject pattern
* set up headless CI that performed tests using WebDriver

# Education

Master's Degree in Computer Science **2009-2014**

*Ulyanovsk state technical university*

Department of Information systems and technologies