# Oleksandr Syrotenko

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#### BIO

My official name is Oleksandr, but I prefer name Sasha. I am software engineer and public speaker currently working for Hazelcast. My majorly interests are **compilers**, **virtual machines and SQL engines** development. Making difference.

#### AREAS OF INTEREST

– JIT/AOT compilers, compilers design, memory management algorithms.

Concurrency, parallelism and formal memory models.

- Both distributed and standard databases development.

- Browser engines development.
- Complex data structures and algorithms.
- Program formal verification.

## KEY SKILLS

• Prog./query languages: Java, SQL, Scala, asm, C++17, WebAssembly, JS.

Technologies:

- JVM frameworks : DataKernel (now ActiveJ), Akka, jooq.
- C++: Qt5, abseil, gtest, OpenSSL, minizip, conan.io.
- Good knowledge of different Unix tools.
- Virtualization and Cloud : Docker, rkt, k8s.
- Build systems: Maven, Gradle, CMake, make, Ninja.
- CI/CD: Jenkins, Travis CI, GitHub Actions.

- Solid algorithms and data structures knowledge.
- Strong system programming capabilities.
- Solid background in math.
- Languages:
  - English (B2)
  - German (A2)
  - Russian (mother tongue)
  - Ukrainian (native)

#### **WORK EXPERIENCE**

Hazelcast Kyiv, Ukraine January, 2021 – present

Senior Software Engineer: SQL engine developer

- We are making distributed SQL engine for fast, fail-safe and handy data querying. - Implemented SQL engine fuzzy tester.

- Developed wide list of SQL operators and functions according to SQL-2003 standard. Developed DML layer in streaming part of SQL engine.

Cybervision, Inc

Software Engineer, Contract

- Support custom 3rd parties forks stability and updates (Qt, OpenSSL, abseil)
  - Developed agent application self-updating for each supported platform.
  - Support integration and e2e tests using Kotlin, TestNG and test-containters.

## ActiveJ, ex-datakernel.io

Software Engineer in Java performance. Contract

Kyiv, Ukraine *June* 2019 – *December* 2019

We have done efficient asynchronous Java framework for and scalable web, network and big data solutions.

- Created runtime class tweaking tool called "ActiveJ Specializer".

Developed IoT agent with Linux, Windows and QNX OS support.

Provide core agent's fucntionality: fast data loading and uploading;

- Support OPC UA and various SQL databases as data sources support .

- Made ActiveJ serializers the fastest(!) in JVM world with my team.
- Made ActiveJ RPC and memcached RPC server one of the most performant in JVM world.
- Provided benchmarks for every major ActiveJ component.

Kviv, Ukraine Aeneas Blockchain Software Engineer December, 2017 – December, 2019

Created mining algorithm, transaction sending and network support for blockchain platform based on Akka and Electron.

# WORK EXPERIENCE (INTERNSHIP)

SAP SE Walldorf, Baden-Würtemberg, Germany

Software Engineer Intern

Integrated Google Cloud Functions for SAP DataHub, multicloud tool for data scientists.

Kyiv, Ukraine Financial Group Aurora Software Engineer Intern *Apr* 2016 – October 2016

Developed custom trading platform for exchange analysis. Improved runtime performance of exchange analysis by 15 percents.

# **EDUCATION**

Taras Shevchenko National University of Kyiv

Software Engineering, Masters

Kyiv, Ukraine

Kyiv, Ukraine

January, 2020 – present

*Sept 2013 – May 2019* 

*July 2018 – Septe 2018* 

## PUBLIC TALKS (5 TALKS OVERALL, LISTED 2 THE MOST KNOWN)

- DataKernel: Mastering Ukrainian highload framework. XPDays, Kyiv, Ukraine | November, 2019.
- Introduction to JavaScript Virtual Machines. KropJS Conference, Kropivnytskiy, Ukraine | December, 2018.