Lucy Kornilova

Software Developer

Berlin, Germany

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Skills

IDE development, concurrency, memory and performance profiling, database management tools.

Talks

Technical Talk: IDE Indexes

JetBrains 2024

Delivered an internal technical talk on IDE indexes architecture, lifecycle, and consistency guarantees, and proposed directions for future development.

MongoDB Tools Everywhere

MongoDB World 2020

mongodb.com/presentations/mongodb-tools-everywhere

Max Marcon, Lucy Kornilova

Presented the latest enhancements to the ecosystem of tools for MongoDB including the new Java driver.

Personal Projects

Matlab/Octave support for JetBrains IDEs

github.com/kornilova203/matlab-IntelliJ-plugin

Developed a plugin that adds support for Matlab and Octave languages. It provides syntax highlighting, code completion, resolve, refactorings.

Education

ITMO University Saint Petersburg, Russia

2014 - 2018 bachelor

Faculty of Software Engineering and Computer Systems
Bachelor's thesis: Computer Search of Distributed Algorithms

github.com/kornilova203/synthesis-of-local-algorithms

Aalto University Helsinki, Finland

2017 - 2018 exchange student

Department of Computer Science

Experience

JetBrains

September 2018 - present | Berlin, Germany

Team Lead | Code Platform team

- Leading a team of 5 engineers working on core subsystems for code highlighting, including IDE indexes, project model, and parsing framework.

- Drove the design and implementation of non-indexable files support, rethinking a fundamental IDE invariant and resolving multiple long-standing UX and performance bottlenecks.

Senior Software Developer | Intellij Core team

- Improved warm startup time of the IDE by up to 30% by removing Virtual File System scanning at launch. Implemented concurrent data structures and optimized multi-threaded code.

Software Developer | DataGrip team

- Designed and implemented MongoDB integration, including an extendable DML code-generation framework for multiple database scripting languages.

- Collaborated with MongoDB team and implemented a Java driver that executes MongoDB JavaScript commands. Java ↔ JS interop.

- Extracted and refactored the DataGrip data editor into a reusable component adopted by DataSpell and Kotlin Notebooks, coordinating design decisions across multiple teams.

- Mentored interns. Led a SQL for MongoDB project from concept to implementation.

Google Summer of Code | Scala Native | Intern

May - August 2018 | Remote

github.com/scala-native/scala-native-bindgen

- Implemented Scala Native Bindings Generator that allows to call native libs from Scala Native code.

Eniram | Software Developer

March - May 2018 | Helsinki, Finland

- Developed internal-use software that analyses data collected from cargo ships.

JetBrains | Intern

June - August 2017 | Saint Petersburg, Russia

github.com/kornilova203/FlameViewer

- Implemented an instrumentation Java profiler that captures granular performance data.

- Implemented a web-based tool to visualize large performance snapshots from different profilers.