

MIKHAIL KOVIAZIN

ClickHouse developer

Since July 2023, I have been a member of [Open Source Program Office](#) at Aiven, primarily contributing to [ClickHouse](#) and [Valkey](#). My role includes code contributions, consulting, testing and maintaining open-source projects.

I am a technology enthusiast with a deep passion for understanding how things work and learning new tools and methodologies. My curiosity drives me to explore and contribute to open-source projects, aligning with my belief in the value of open collaboration.

Beyond work, I actively engage in personal projects, such as revitalizing [OpenGTA](#), an open-source implementation of GTA 1. I am trying to give this project a new life, so it can run using modern libraries and the best C++ practices. This endeavor combines my interest in modernizing legacy codebases with C++ best practices and exploring game development and graphics, including work in Rust.



EDUCATION

2015



ITMO University

B.S. in Applied Mathematics

📍 Saint Petersburg, Russian Federation



PROFESSIONAL EXPERIENCE

06.2023

|
now



Senior Software Developer

[Aiven GmbH](#)

📍 Berlin, Germany

Member of [Open Source Program Office](#). Focused on enhancing and contributing to open-source projects, specializing in [ClickHouse](#) and [Valkey](#) ecosystems.

- **Contributions to ClickHouse project.** Actively contributed to the ClickHouse project (**C++20**), creating [issues](#) and submitting [pull requests](#).
- **Technical Consulting:** Advised colleagues on ClickHouse internals, optimized workflows, and resolved complex issues, fostering efficiency in database management.
- **Cluster Testing:** Conducted thorough testing of ClickHouse clusters to ensure stability and scalability.
- **Python Development:** Worked extensively with the product codebase to support internal integrations with ClickHouse and Valkey.
- **Valkey Ecosystem Contributions:** Maintained and enhanced Valkey clients ([valkey-py](#), [libvalkey-py](#)) and contributed to key libraries ([libvalkey](#), [valkeymodule-rs](#)) as well as valkey itself.
- **Apache Avro Contributions:** Made impactful [code contributions](#) and conducted reviews to maintain high standards in the Apache Avro project.



CONTACT INFO

✉ mk@mkmk.me

🐙 [@mkmkme](#)

🌐 <https://mkmk.me>

📁 [Other stuff](#)

For more information, please contact me via email.

SKILLS

Strong skills in **modern C++** and **C**. Good understanding of **Python**, **Go**, **Lua**, **Shell scripting**.

Using **Linux** since 2010, professionally developing for Linux since 2014.

Contributions to various **open-source** projects ([ClickHouse](#), [Valkey](#), [Avro](#), [systemd](#), [libmtp](#), [finit](#) etc). **Maintainership** of [valkey-py](#), [libvalkey-py](#).

Proficient **git** user (rebase interactive, rewriting history, rebase); some experience with **subversion**.

02.2022
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06.2023

Senior Developer

[WithSecure Oy](#)

📍 Helsinki, Finland

Working on a new cross-platform SDK.

- Designing the API of some components according to the upstream API and downstream needs
- Lots of interactions with different teams regarding the API of the SDK
- Implementing parts of SDK using C++, Objective-C, Swift (learning Mac internals in the process)
- Turning platform-specific code (in C++) to cross-platform

Successfully implemented Conan package manager into team working pipeline.

- Adapting 3rd-party Conan packages to the needs of the team
- Packaging internal libraries to Conan; Some of them had to be restructured
- Automating the whole pipeline from source through tests to uploaded Conan package
- Designing and implementing the internal Conan registry tools (Python) similar to conan-center
- Consulting the team members about best practices with Conan; Knowledge sharing sessions

02.2019
|
02.2022

Senior Developer (for Linux)

[F-Secure Oy](#)

📍 Helsinki, Finland

Development of Linux products (LinuxSecurity, Atlant, ThreatShield)

- Design and development of the services in microservice architecture
- C or C++, async using <https://github.com/f-secure/async>
- Module tests in **Python** using [pytest](#)

Facilitated the adoption of Go programming language within the team by providing guidance, best practices, and hands-on support for its integration into projects

- Now used as a replacement for Python in some modules
- Have written JSON webserver from scratch for product control

Involvement in design and development of internal components.

02.2018
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02.2019

Software Engineer

[Kraftway](#)

📍 Saint-Petersburg, Russian Federation

NAND controller firmware development:

- Flash Translation Layer code analysis and support (**C++**).
- Developed utilities for flashing and testing **Zynq xc7z100 SoC** using coverage and profiling data retriever; build scripts generator and I/O benchmark (wrapper around `fio`); Mostly **Xilinx SDK** wrappers written in Python.
- **Buildroot**-based PXE image for testing Zynq xc7z100 support.
- Developed CI infrastructure for automatic firmware testing.

07.2016
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02.2018

Software Developer

[Protei](#)

📍 Saint-Petersburg, Russian Federation

Buildroot-based embedded Linux distribution development:

- Added new packages and supported existing ones.
- Migrated to the new init system ([finit](#)).
- Added new features to the buildroot.

Simple network manager development from scratch:

- Dbus client-server (CLI-daemon) application + library for using in other applications.
- Setting static IP via ioctl, DHCP via dhclient.
- Default gateway setting via ioctl, DNS via Dbus calls to dnsmasq.
- Network interfaces state monitor via netlink.
- Written in C with libdbus.
- deb/rpm packages creation in GitLab CI.

imx6-based SoC asher/tester utility development:

- USB/UART/JTAG connections.
- ulmage parsing.
- Written on Python using struct, usb1, pexpect, serial.
- Setuptools package creation in GitLab CI.

Simple backup manager development:

- Archive consistency control.
- Fast comparison of backups.
- Written in Python with custom tarfile wrapper.

Minor improvements of opensource projects:

- finit (merged into upstream).
- dnsmasq.

MTD device Linux kernel module research and improvement.

09.2014
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07.2016

Junior Software Developer

[Aircraft Systems](#)

📍 Saint-Petersburg, Russian Federation

On-board computer software development:

- Added support for the new ARINC interfaces.
- Added libmtp support for software updating from MTP devices.
- C++, Qt, lots of bit arithmetic.

Contributing to open-source project libmtp and in the end got the write support.

Developed small utilities in C++ with Qt.

Set up and administrated the build server.



LANGUAGE

- **Russian**
Native.
- **English**
Fluent.
- **Finnish**
B1.
- **German**
A1.