

IVAN KIRILIN

C/C++ Backend Engineer

Bonn, Germany • Open to relocation/remote • Work authorization: Germany (student residence permit); EU/UK: sponsorship required
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SUMMARY

C/C++ backend engineer focused on Linux and database systems (PostgreSQL/Greenplum/Cloudberry internals, extensions, SQL regression). Strong in multithreading, profiling/debugging, and CI automation (Jenkins/GitLab). Delivered measurable impact: 7% faster 20TB backup/ingest runs, 40% fewer known bugs, 30% fewer incidents.



SKILLS

Languages: C, C++ 17/20, Python, SQL, Bash

Systems/Build: Linux, Docker/Podman, CMake, Make, Git, GitHub/GitLab, Jenkins CI, GCC/Clang

DB/Storage: PostgreSQL/Greenplum/Cloudberry (extensions: diskquota, PostGIS, pgAudit), S3-compatible

Testing: SQL regression suites, GoogleTest, Pytest

Perf/Debug: perf, strace, ASan/TSan/UBSan, clang-tidy, cppcheck, Google Benchmark, gdb, valgrind

EXPERIENCE

SBERBANK (DISTRIBUTED LARGE DB SYSTEMS)

Moscow, Russia

C/C++ Developer

Apr 2025 - Oct 2025

- Migrated backup/ingest compression to LZ4; reduced runtime by 7% on 20TB runs and reduced backup storage footprint by ~30%
- Increased test coverage (+15%) and automated Jenkins checks, contributing to a 40% reduction in known bugs
- Updated Greenplum resource groups to fit the customer's rules and added tests
- Resolved critical PostGIS/pgAudit defects (crashes & edge cases) under strict deadlines. Delivered a hotfix that reduced incident volume by 30%
- Ported the diskquota (a DB extension) to Cloudberry for 50+ node clusters; this let us release a client info product 4 weeks before the deadline

IVA TECHNOLOGIES (VIDEO/REAL-TIME SYSTEMS)

Moscow, Russia

C++ Developer

Jan 2024 - Apr 2025

- Implemented real-time features with WebRTC and resolved races/deadlocks/contention issues that improved call-session stability
- Added pytest-based regression tests and release gates; improved release stability and earlier regression detection
- Built an end-to-end auto-build for our internal Linux fork and hooked it into GitLab CI/CD, speeding up mobile app releases
- Built a reusable timer/scheduling component for a large C++ codebase; fixed memory leaks and refactored performance-critical paths
- Ported the corporate repository to the latest Linux kernel release; resolved compatibility issues and stabilized the build toolchain
- Built a reproducible automated release process; clean builds now finish in ~30 minutes (from ~2 hours) and onboarding takes ~1 hour

EDUCATION

UNIVERSITY OF BONN

Master of Science in Computer Science

Germany, Bonn

Oct 2025 - Present

MOSCOW AVIATION INSTITUTE

Bachelor of Computer Science, Major in Computer Science; Minor in Mathematics

Moscow, Russia

Sep 2021 - Aug 2025

ADDITIONAL INFORMATION

- Languages: Russian (Native), English C1 (IELTS), German B1