

Kirill Chernyavskiy

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1 About

Software engineer, programmer and researcher with 10+ years of experience. Strong background in software architecture, distributed/concurrent systems, decentralized systems, micro-services. Active [open-source author and contributor](#), maintainer in open-source organizations.

1. GitHub: github.com/g4s8
2. LinkedIn: www.linkedin.com/in/kirill-che-8093071b8/
3. StackOverflow: stackoverflow.com/users/1723695
4. Personal blog: www.g4s8.wtf/posts
5. Email: g4s8.public@gmail.com
6. Telegram: [@kirill_g4s8](https://t.me/kirill_g4s8)

2 Skills

- **Strong:** Go, Java, distributed and concurrent systems, REST, HTTP, gRPC, PostgreSQL, ReactiveStreams, Git, CI/CD, Docker.
- **Medium:** Kafka, Redis, RabbitMQ, MySQL, Kubernetes, TLA^+ , CouchDB, MongoDB, etcd, AWS.
- **Basic:** JavaScript (NodeJS, React), C, Rust, Python, Solr, Lucene.

3 Experience

- Jun 2022 - Jun 2023 **HUBUC** — Back-end engineer.
Responsibilities: Contributed to Mastercard issuer processor service. Implemented new features for processor, such as card payment processing, ECOM payments, SCA/PSD2, MDES (tokenization), etc. Implemented multi-instance support for issuer processor, Mastercard connection management, message routing between services.
Technical stack: Go, gRPC, ISO-8583, RabbitMQ, PostgreSQL, AWS.
- Mar 2022 - Aug 2023 **Quantum brains** — Tech-lead.
Responsibilities: Implementing and maintaining cryptocurrency algorithmic-trading DEFI services and smart contracts. Created low-latency services execution layer; Implemented blockchain event-log stream mempool processors. Integration with protocols: aave (v2, v3), compound, uniswap (v2, v3, sushiswap, trader-joe), curve. Optimizing performance critical code. Created smart-contracts for algorithm execution.
Technical stack: Go, Ethereum, Avalanche, BSC, Solidity, Kafka.
- Jan 2020 - Feb 2022 [Huawei \(research laboratory\)](#) — **principal engineer and team lead in Huawei Cloud**.
Responsibilities: manage two teams and design system architecture for Huawei Cloud projects; investigate and fix technical problems; suggest features and discussing requirements.
Achievements: 1) designed and implemented high-load micro-service cloud system for git repository replication with strong consistency model. 2) designed and implemented a toolkit (SDK) for software package (artifact) repository management, integrated into high-load cloud product.
Technical stack: Java, Go, Git, Paxos-commit, ReactiveStreams, Kafka, Redis, PostgreSQL, VertX, NIO, S3, etcd, HTTP, REST, gRPC.

- Jan 2018 - Jan 2020 **Self-employed.** Worked as a freelancer, participated in remote projects, created new projects from scratch.
Responsibilities: find, hire and manage remote teams; designing architecture; discussing requirements; fixing technical issues.
Achievements: designed and implemented technical solutions for startup projects; organized and managed a remote team of freelancers;
Technical stack: Java, Go, Kubernetes, gRPC, S3, SQS, Blockchain, Hadoop, Nutch, Terraform, HTTP, PostgreSQL, OracleDB, JavaScript, React, Python, AWS-MTurk.
- Nov 2015 - Dec 2017 **Eventicious** — **senior developer** in conference/events startup.
Responsibilities: implement new features for mobile applications; participate in architecture decisions.
Achievements: implemented cross-platform mobile prototype for requirements; implemented customized build system for creating branding mobile applications in one click.
Technical stack: C#, Xamarin, Java, Android, iOS, Azure.
- Jan 2013 - Jan 2018 **Developer** in **Mercury development** — outsourcing company with US-based projects.
Responsibilities: implement technical features; bug-fixing;
Achievements: implemented Android-TV application for cloud presentations; created low-level SDK for BLE fitness-tracker; implemented food search features for health product; implemented features in distributed multi-media storage system.
Technical stack: Java, Android, C, JNI, PostgreSQL, Solr, Lucene, BLE, NodeJS, Redis, MySQL.
- Jun 2012 - Jan 2013 **Self-employed**, my first project.
Responsibilities: discussing requirements with customer, implementing features, fixing bugs.
Achievements: designed and implemented accounting application for book-store which was used more than 5 years.
Technical stack: C#, MySQL, windows-forms.

4 Public activity

- Talk about "Low Latency Patterns" on GopherCon Singapore 2023
- GitHub open source projects github.com/g4s8
- StackOverflow answers [@kirill](#)
- Personal blog about software engineering g4s8.wtf

5 Most valuable projects

This is the list of most valuable projects.

CodeHub	(Service owner / maintainer) The project for HuaweiCloud, it is similar to CodeCommit and CodePipeline on AWS. I implemented replication system and storage services for git repository data. These services are able to store and replicate millions of git repositories located on a few thousands of geo-distributed machines, and provide strong consistency (casual consistency) guarantees on repository data updates.
CloudArtifact	(Components maintainer) Artifact repository service in Huawei Cloud, similar to Artifactory or Nexus. I managed a team to implement components for repository data processing and metadata generators for Docker, NPM, RPM. These components were Java libraries to provide reactive API for data stream processing of repository artifacts.
Artipie	(Maintainer) Software package management constructor and service. Provides components for building custom artifact manager, processes different artifact repository metadata formats (such as Maven, NPM, Docker, and many other), provides assembly as a self-hosted service, and deployed as a free invite-only public server for hosting artifacts from open-source projects. github.com/artipie .
GitLab/Gitaly	(Contributor) Git RPC service for handling all the git calls made by GitLab. Contributed with some improvements as merge-requests, and submitted issues about replication problems. gitlab.com/gitlab-org/gitaly .

- Gitstrap** (Author) CLI helps to bootstrap GitHub repositories. User writes configuration files for this tool, and it creates ready to use repository on GitHub with initial documents, branch-protections, CI/CD, etc. github.com/g4s8/gitstrap.
- RIO** (Author) Java library for reactive input-output operations. A set of wrappers which provides reactive publisher API for standard IO primitives with flexible configuration of adaptive back-pressure. github.com/cqfn/rio.