

# Orest Kulik

I am an experienced and enthusiastic software engineer with two decades of experience across diverse software development areas. My passion lies in creating distributed and service-oriented backends using languages like Go, Ruby, and Elixir. Additionally, I have strong skills in various DevOps tasks, including building complex CI/CD pipelines and efficiently managing cloud services and infrastructure with Terraform and containers, across both AWS and GCP.

I take pride in developing code that's simple, easy to read, well tested, and dependable - a codebase that encourages collaboration and also stands the test of time. I also enjoy learning new skills, adapting to new tools, systems and technologies. I am a team player, skilled at effective and open communication and eager to share knowledge selflessly. Beyond focusing on software development best practices, I care deeply about the product and the value it brings to customers. I proactively assess all aspects of the product and contribute wherever needed. I not only listen carefully but also challenge established truths and outdated standards. I am a pragmatic problem-solver and critical thinker, not afraid to express opinions, respectfully.

GitHub: [okulik](#) LinkedIn: [orestk](#)

## Recent Employment

### Babbel - Senior Software Engineer

2024/06 - 2024/12 (remote, Berlin/DE)

Babbel is a subscription-based language learning software and e-learning platform, available in multiple languages since January 2008. As a member of the Identity team, I have been responsible for developing internal services and shared libraries related to access and identity management for both B2C and B2B learners. My responsibilities included:

- Maintaining and adapting existing authentication endpoints, handling topics such as OpenID, OAuth, SSO, SAML, Okta, and auth SDKs for mobile platforms.
- Contributed to the development of a new, event-driven, authorization service designed to enable a more granular approach to authorization management. This new service was intended to replace the existing authorization mechanism - it began in shadow mode and was gradually introduced to production using a strangler fig pattern, with numerous, carefully planned migration tasks.
- Led Golang, and Docker workshops for the team to establish a shared understanding of tools and languages used for the new authorization service.
- Assisted the team in shaping the new product by applying best practices in software development and event-driven design, and by discussing related benefits and trade-offs, including the addition of telemetry to support performance monitoring and business metric analysis.

Technologies: AWS ECS, AWS Lambda functions, AWS Kinesis, Golang, Ruby, Rails, Terraform, Docker, GitHub Actions

### Distribusion - Senior Software Engineer

2024/01 - 2024/06 (remote, Berlin/DE)

Distribusion is a German technology platform providing a B2B API for ground and ferry transportation, connection various transportation carriers to retailers. As a member of the integration team, I was responsible for managing carrier APIs - monitoring, maintaining, and building integrations, MVPs, and the platform overall. Specifically, I was responsible for:

- Adapting new carrier APIs to match the common interface of the internal integrations platform.
- Advocating for broader use of configuration management across the entire API platform.
- Developing an MVP for an Open Sales and Distribution Model (OSDM) implementation.

Technologies: Kubernetes, GCP, Prometheus, Ruby, REST, SOAP, protobuf, Terraform, Docker

### Second Prototype - Senior Software Engineer

2023/07 - 2023/12 (self-employed, Zagreb/HR)

I dedicated six months focusing on the development of a GitOps-based configuration management tool. This project emphasised the use of code review practices to efficiently and reliably manage configuration changes. Services and related toolchain focused on designing a shrink-wrapped product that could be effortlessly deployed across existing Kubernetes cluster, compatible with both GCP and AWS in a multi-cloud environments. The primary programming languages used were Go, supplemented by Elixir, and with Terraform for infrastructure as code (IaC) purposes.

Technologies: Golang, Elixir, Apache Kafka, Kubernetes, Terraform, AWS, GCP, Docker, cdk8s

### Deliveroo - Staff Software Engineer

2022/01 - 2023/06 (remote, London/UK)

Deliveroo is a British online food delivery company that operates in more than 10 countries and almost 1000 cities around the world. I was a member of the Experimentation Platform and Measurement team (part of the platform engineering group) where I played a significant role in developing GitOps-based configuration management services and CI/CD pipelines. Primary focus was on improving feature flag determinations and building new, company-wide configuration management service.

Additionally, contributed to the maintenance of various experimentation platform components, including sessions determination, SQL query builders, and more. More specifically, my responsibilities were:

- Implementing a sidecar service written in Go; low latency/memory footprint requirements (using Apache Kafka's assign API); heavy usage of protobuf; deployed on up to 15K nodes (AWS ECS).
- Building a dynamic configurations management service in Go; using REST API for front-end and control plane, and JSON to protobuf conversion; supports release versioning, deployment, rollbacks, etc.
- Creating a strongly-typed configurations repository system; built with GitOps principles on top of CircleCI's Github integration/runners/REST API (using a mix of make files and shell scripts); relying on Apache Kafka for notifications.
- Creating custom Terraform providers in Go.
- Maintaining Apache Flink/Scala sessionator app running in AWS KDA.
- Maintaining XP platform's Snowflake/SQL composition toolchains (Ruby).

Technologies: Golang, Ruby, PostgreSQL, Redis, Kafka, Flink, protobuf, gRPC, Docker, Terraform, AWS ECS KDA, DataDog, CircleCI

## Leadfeeder - Engineering Team Lead, Senior Software Engineer

2016/08 - 2022/01 (remote, Helsinki/FI)

Leadfeeder is a Finnish SaaS company that specialises in web analytics product tailored for B2B clients, as well as sales and marketing teams. Being among the first remote software engineers at Leadfeeder, my initial focus was on developing product's integrations and synchronisation pipelines for various CRMs, including HubSpot, Pipedrive, ZohoCRM, Microsoft Dynamics 365, and Salesforce. Subsequently, I was promoted to the role of engineering team lead where I participated in the development of an in-house page view tracking and analysis pipeline, similar to Google Analytics. The foundation of our main data ingestion pipeline was built using AWS services such as lambda@edge, Kinesis, Kinesis Data Analytics (KDA), and Elasticsearch. Some of the responsibilities included:

- Creating a reliable, DAG-style workflow (parent-child job dependencies) on top of Sidekiq/Redis for sequential processing of CRM entities; implemented with Sidekiq's batch API.
- Using builder, adapter, and dependency inversion patterns for unifying Ruby syncing code.
- Architecting and building a main data ingestion system for receiving and storing all user generated page view events by creating a complex, region-aware pipeline built on top of AWS and consisting of edge lambdas (for processing incoming browser javascript snippet events), KDA streaming SQL code for session detection, Kinesis data streams with custom consumers, etc. The pipeline contained a parallel "shadow" branch for testing new code with (a subset of) production data.
- Building geolocation identification service (using industry leading IP geolocation database providers)
- Implementing and maintaining web firewall rules and tools for false positive traffic detection.
- Introducing gRPC-based services throughout the organisation.

Technologies: Ruby, Rails, Golang, Sidekiq, Cassandra, Elasticsearch, Memcached, MySQL, PostgreSQL, Redis, Docker, Terraform, AWS EKS KDA Kinesis, Kubernetes, Istio, Grafana, Prometheus, NewRelic, SemaphoreCI

## e-Accent - Senior Software Engineer

2015/04 - 2016/07 (remote, Hilversum/NL)

As a full-stack Rails developer, contributed to an ERP call-centre web application, with a focus on enhancing the appointment planning workflow. Additionally, participated in product feature planning and on-call operations duties. Responsibilities included:

- Maintaining a large Ruby/Rails code base, specifically improving the appointments planning workflow.
- Participating in on-call rotation duties and day to day operational tasks.

Technologies: Ruby, Rails, Vagrant, Nginx, PostgreSQL, Redis, CoffeeScript, Travis

## Labtiva/ReadCube - Senior Software Engineer

2011/03 - 2014/11 (remote, Cambridge-MA/USA)

One of the first non-founder software engineers, responsible for developing ReadCube's initial backend software stacks, utilising Ruby/Rails, Heroku, and various AWS services such as S3, SQS, and SNS. Contributed to infrastructure development for data crunching and web crawling jobs on AWS, and improved PDF rendering on OSX, Windows, and iOS platforms through Flash native extensions. Furthermore, involved with designing and implementing recommendation, search, and syncing services, as well as managing Elasticsearch, configuring nginx and HAProxy for load balancing, and maintaining MySQL and Neo4j databases. More specifically, responsibilities included:

- Implementing a cross-platform, Flash native extension compatible GUI component for improved PDF rendering (Objective-C, C++, pdfium).
- Creating an initial version of backend syncing service with REST API and Elasticsearch (Ruby, Rails API)
- Contributing to web crawling/data crunching initial codebases (mostly Ruby).

Technologies: Ruby, JRuby, Rails, Sinatra, Unicorn, Puma, Heroku, AWS, C++, C, Python, JavaScript, AngularJS, ActionScript 3, AppleScript, Mercurial, Flex, Node.js, Elasticsearch, Neo4j, Objective-C, Flash Builder, Xcode, Visual Studio, Docker, Kln/Hg

## RealNetworks - Senior Software Engineer

2010/03 - 2011/03 (remote, Seattle-WA/USA)

As a Senior Java/C++ Software Engineer, joined a team responsible for porting an existing white-label mobile application from J2ME to Qualcomm's BREW platform. Involved with a development of J2ME to C++ language translation tools and a C++-based J2ME emulation runtime (with a focus on writing the J2ME layer); supporting the translated code and addressing platform differences between BREW and J2ME, such as threading, exception handling, and garbage collection. Finally, worked on a white-label mobile application for media distribution and sharing, primarily targeting Android smartphones and tablets.

Technologies: Java, J2ME, Eclipse, C++, GCC, MinGW, Brew MP SDK, Subversion, CVS, RedMine

## SecurityHeroes - Senior Software Engineer, Team Lead

2009/04 - 2010/03 (on-site, Zagreb/HR)

Hired as one of first software engineers at SecurityHeroes, a web security startup based in Boston, MA, with a focus on developing web browser extensions for ads and malicious content filtering. Tasked with forming and leading a small engineering team, took a point on designing and implementing significant parts of both frontend and backend components for the next-generation web browser ad-blocker. More specifically, responsibilities included:

- Creating frontend as a Firefox extension using XUL (XML User Interface Language), JavaScript, and C++ with a lot of time spent into analysing Firefox internals.
- Developing backend service (using .NET and C# with WCF-REST framework) for evaluating real-time, database-driven blocking rules, with a false-positive validation.
- Involved in building an ISP-colocated IBM blade servers cluster and storage.

Technologies: C++, JavaScript, XPCOM, XUL, C#, WCF-REST CryptoPP, Subversion, Trac

## Enghouse Interactive - Senior Software Engineer

2008/04 - 2009/03 (on-site, Zagreb/HR)

Joined Envox (acquired by Enghouse Interactive) as a Senior Software Engineer and worked on the EnvoxStudio computer telephony application (IVR, using Dialogic boards) and maintained CT ADE, an IVR app recently acquired from Intel. Responsibilities included fixing bugs, identifying performance bottlenecks in CT ADE, creating integrations between CRMs and EnvoxStudio, and enhancing VoiceXML features in CT ADE.

Technologies: C++, ActiveX, Java, Python, Eclipse, CT ADE, VoiceXML, TTS, ASR, Dialogic, Subversion, VS 2008, BoundsChecker, Purify

## Education

Master of Electrical Engineering and Computer Science, Faculty of Electrical Engineering and Computing, University of Zagreb, thesis "Pattern classifier with linguistic variables as input", keywords C, fuzzy logic, fuzzy sets, natural language.

## Certificates

Coursera - Machine Learning (Sep 2014)  
MCPD (Enterprise Applications Developer, C#)  
MCTS (Distributed, Web and Windows Apps)  
MCSD (Early Achiever, C#)  
MCSD (C++)