Orest Kulik

Staff/senior software engineer and team lead with two decades of professional experience, specialising in backend service development using Go, Ruby/Rails, and Elixir. Also proficient in DevOps tasks such as building complex CI/CD pipelines and managing cloud services and infrastructure with Terraform. All-round knowledge and a proven track record in building dependable software systems.

A great communicator, skilled at learning, adapting, and sharing knowledge about new tools, systems, and technologies. A pragmatic problem-solver and critical thinker not afraid to express opinions respectfully, proficient in remote work environments.

GitHub: okulik Linkedin: orestk

Recent Employment

Deliveroo - Staff Software Engineer

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

Member of the Experimentation Platform and Measurement team (platform engineering), involved with improving backend services related to feature flags determination, a/b testing, XP platform runtime, application configurations management, and sessions streaming. Specifically, responsibilities included:
- 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.
- 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, DataDog, CircleCI

Leadfeeder - Engineering Team Lead, Senior Software Engineer

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

As an Engineering Team Lead role, oversaw the development of an in-house page view tracking and analysis solution (similar to Google Analytics). It was created on top of AWS with lambda@edge, Kinesis, KDA, and Elasticsearch. Prior to that, worked as a Senior Engineer on the core product's integrations and synchronisation pipelines for different CRMs (HubSpot, Pipedrive, ZohoCRM, Microsoft Dynamics 365, Salesforce). 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, Kubernetes, Istio, Grafana, Prometheus, NewRelic, SemaphoreCI

e-Accent - Senior Software Engineer

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

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, Kiln/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

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

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++)