

Go Developer | DevOps/SRE Engineer | Kubernetes contributor

 linkedin.com/in/roman-erema  github.com/r-erema  leetcode.com/u/r-erema/

 Minsk, Belarus  roma.a.erema@gmail.com

Software Engineer(Go Developer, DevOps/SRE) with 12+ years of high expertise working with Go, Kubernetes, AWS, Terraform, CI/CD automation tools and Microservices Architecture.

Keen on coming up with design solutions to make systems reliable, fault-tolerant, and as simple as possible keeping clean architecture and clear self-documented code.

Like automating development processes and daily routines to save time and make the team's life easier.

Very impressed with the idea of cloud platforms, and I want to contribute to the cloud domain as a software engineer.

I'd like to research how the components in a cloud are arranged on a low tier. Having extensive experience as a cloud consumer (DevOps on AWS) and a cloud developer (Go developer in the [Managed K8S Service](#) in [MWS](#)), and being a [contributor of Kubernetes](#) (Go Developer), I believe that my experience would be valuable to the cloud team.

Competencies

- **Programming:** Go, Bash, PHP, Javascript, Groovy, Python, Rust, C, C++
- **Go:** gorilla/mux, gomock, stretchr/testify, onsi/ginkgo, onsi/gomega, golang/oauth2, golang-migrate/migrate, pressly/goose, go-gorm/gorm, uber-go/dig, go-funk, go-delve, go-testfixtures/testfixtures, urfave/cli, gin-gonic/gin
- **Databases:** MySQL, PostgreSQL, MongoDB, Redis, Sphinx Search, MariaDB, Neo4J, SQLite, Memcached, Elasticsearch, DynamoDB
- **DevOps:** Jenkins, Docker, Prometheus, Hashicorp Vault, Bash, RabbitMQ Prometheus Plugin, Makefile, Ansible, Groovy, Apache, Nginx, Mongo Atlas, Docker Compose, Disaster Recovery, Secrets Rotation, GCP, IBM Cloud, Vagrant
- **AWS:** EC2, S3, RDS, EKS, CloudWatch, IAM, Route53, Backup, Lambda, Lightsail, API Gateway, Cognito
- **Kubernetes:** Cluster API, Helm, Autoscaler, Calico, The Vault Secrets Operator, AWS Load Balancer Controller, Amazon EBS CSI driver, Kube Prometheus Stack, Lens, Fluent Bit, Kubecost, Kuberhealthy, Open Policy Agent, Kubespray, Bare Metal Cluster, Chartmuseum
- **IaC:** Terraform, Terragrunt, Terraform EKS Module, Terraform VPC Module
- **CI/CD:** GitHub Actions, Bitbucket Pipelines, Circle CI, GitLab CI/CD, Travis
- **Technologies:** Concurrency, gRPC, VMware vSphere, JWT, Containers, Queues(RabbitMQ), OAuth2, Git, Protocol Buffers, WebSockets, Webhooks, Swagger, JSON, YAML, JSON-RPC, RESTful API, SOAP, Polling, BSON, SphinxQL, Machine Learning, Computer vision, OPcache, QR-Code, Reverse Engineering, SVN
- **APIs:** Microsoft Graph API, Microsoft Office 365 API, Microsoft Exchange Server API, Slack API, Telegram API, Whatsapp, API, Google API, Viber API, Google Sheets API, Google Drive API, Facebook API, Yandex Maps API, VK API, Odnoklassniki API, Sberbank API, Bepaid API, PayOnline API
- **OS:** Linux, Debian, Ubuntu, Unix, Windows, Mac OS
- **PHP:** Zend Framework 2/3, Symfony 3/4/5, Laravel, Composer, Doctrine ORM, Selenium, Codeception, PHPUnit, MODx, Wordpress, Phing, RoadRunner, php-webdriver, BC Math, Twig
- **Front-end:** ReactJS, React Material UI, Redux.js, jQuery, Twitter Bootstrap, npm, Webpack, Gulp, AJAX, HTML5, SASS
- **Languages:** English(Upper Intermediate), Russian(native)

Experience

MTS Web Services, cloud platform providing a series of modular cloud services including computing, data storage, alongside a set of management tools - Managed K8S, Managed RDBMS, etc.

Sep. 2024 - pres.

Projects:

- [Managed Kubernetes Service](#) | Go Developer | Feb. 2021 - pres.

A managed service that eliminates the need to install, operate, and maintain your own Kubernetes control plane

- Implemented billing accounting of managed clusters
- Developed infrastructure provider operators
- Developed Cloud Controller Manager

(K8S) (Cluster API) (Go) (Prometheus) (Victoria Metrics) (PostgreSQL) (VMware vSphere) (Jaeger)

Vention, premier global leader in software engineering, synonymous with technology designed for scale and the common denominator behind the world's most successful tech-empowered enterprises, industry innovators, and startups. Headquartered in New York with 20+ offices, Vention provides access to 3K+ engineers worldwide and equips technology leaders with the top engineering talent from the world's most respected tech hubs.

Jun. 2020 - Aug. 2024

Projects:

• **EBANQ, Málaga, Spain | DEVOPS/SRE | Feb. 2021 - Aug. 2024**

The multicontinental company which provides turn-key solutions for Banks, Neobanks, Electronic Money Institutions, Payment Institutions, Insurance Companies, Remittance Companies, Asset Managers. The project has **40K+ active accounts** distributed over **80 environments(compute and DB servers, blob storages, etc.)** and handles **500K+ transfers** and **1M+ transactions** monthly.

- **Redesigned and migrated** the architecture in favor of the **Kubernetes cluster**. That reduced the underutilization of the virtual machines and **saved 40% costs** on the same workloads
- Actively **researched and implemented cost-reducing architectural solutions** (replacing RabbitMQ with Amazon SQS, applying RDS and EC2 Reserved Instances, etc.), that **reduced resource consumption and cloud costs by 20%**
- **Performed automation for daily DevOps routines** using Jenkins, Terraform, Bash, etc., which **saved** significant amount of working **time(at least 50%)**
- Implemented DB secrets rotation using Vault in Kubernetes
- Even distribution of the cluster costs across clients using Kubecost
- Replaced AWS EBS volumes in K8S cluster with Mountpoint for Amazon S3 **to make services scalable and reduce efforts for maintenance**
- Eliminated infrastructure security issues

(AWS) (Kubernetes) (Go) (Jenkins) (Docker) (Kube Prometheus Stack) (Hashicorp Vault) (Bash) (AWS EKS) (Calico) (AWS EC2) (AWS S3) (AWS RDS) (AWS CloudWatch) (AWS IAM) (AWS Route53) (AWS Backup) (AWS Lightsail) (Makefile) (Ansible) (Groovy) (Nginx) (Disaster Recovery) (Secrets Rotation) (Helm) (Autoscaler) (Vault Secrets Operator) (AWS Load Balancer Controller/li> (Amazon EBS CSI driver) (Lens) (Fluent Bit) (Kubecost) (Kuberhealthy) (Open Policy Agent)

• **Roombot, Minsk | SENIOR SOFTWARE ENGINEER | Jun. 2020 - Aug. 2024**

Online booking and scheduling software for meeting rooms. The system provides simple tools, such as a Telegram Bot, a Slack bot, and public RESTful API for reserving conference rooms and other spaces or resources within the company's offices. The software ensures that organizers and attendees have the necessary

- **Building a Kubernetes cluster** for production and testing environments from scratch, which **increased reliability** of the system **by 30%** and **reduced deployment time by 50%**
- Integrated **Microsoft Office 365** interaction using **Microsoft Graph**
- Implemented **OAuth2 Authentication**
- Established **integration testing**
- Acquired the capability of handling **team-leading responsibilities**
- Designed and developed a logging system for the **Telegram Bot**

(Go) (Kubernetes) (Kubespray) (Helm) (MongoDB) (ElasticSearch) (Microsoft) (Graph Microsoft Office 365) (Microsoft Exchange Server) (gRPC) (Gitlab CI) (JWT) (OAuth2) (Telegram API) (Integration testing) (stretchr/testify) (golang/oauth2) (gomock) (urfave/cli) (RESTful API) (Docker) (SOAP) (JSON) (logrus) (Docker-compose) (Gorilla mux) (Makefile) (Microservices) (XML) (Chartmuseum) (Helm charts)

Synesis, one of the leading companies in artificial intelligence focused on computer vision, has over 1K world-class engineers. Synesis cooperates with Viber, Yandex, Alfresco, and other well-known companies to develop successful

products

Apr. 2019 - Feb. 2020

Projects:

- **Eggnog.chat, Minsk | SENIOR SOFTWARE ENGINEER | Apr. 2019 - Feb. 2020**

B2B system for catering based on **face recognition** and restaurant **chatbots**. Eggnog integrates messenger marketing tools (mass message distribution to messengers, loyalty programs, feedback, cashless tips payment) that allow restaurants to create loyal communities for repeated sales, upsell, and customer returns. The system allows an administrator to create customized menu dishes in the admin panel manually or import a ready menu by Google Sheets

- **Created the core of the entire project** based on face recognition followed by interaction with the user (via WhatsApp, Telegram, and Viber) and the restaurant administrator (via Slack)
- **Implemented WhatsApp API based on WebSockets** daemon, which allowed to have WhatsApp integration and **attracted 70% of customers**
- **Created** a system of **mass distribution of promotions by messengers**(WhatsApp, Viber and Telegram)
- Developed admin panel from scratch
- Designed and implemented customers dishes API with ordering
- Integrated of Internet Acquiring (Sberbank, Bepaid)
- Developed uploading catering menu using Google Sheets as a database
- Implemented user loyalty logic related to completed orders

Texode, provides comprehensive software solutions, specializing in business protection and mobile and system application development. Since 2009, it has delivered successful projects in software development and systems integration. Its expert team is committed to high-quality products and strong client relationships, helping businesses achieve their digital goals.

Oct. 2013 - Apr. 2019

Projects:

- **Praca.by, Minsk | SENIOR SOFTWARE ENGINEER | Oct. 2017 - Apr. 2019**

The largest job search portal in Belarus(> 1.2M users). The product is cross-platform and supports API and interface for mobile apps (iOS and Android) and SPA. There are numerous modules in the platform such as the CV and vacancies auto-search, hiring statistics, admin panel, email and push notifications(handles > 10K actions per hour), etc. The portal is optimized for high-load traffic and handles constantly updated events in several databases.

- Creation of the **auto-search** of the relevant CVs and Vacancies for users, that feature **increased customers on 25%**
- **Migrated** the application infrastructure **to Docker**, **reducing deployment time** at least **50%**
- **Updated** the portal to **the SPA mode**
- Implemented vacancies and CV **search on the geographical map** using Yandex.Maps
- Developed multistep CV wizard (aka CV builder)
- Integrated registration and authentication via third-party services : Google, Facebook, VK, Odnoklassniki
- Developed vacancies logic which depends on the location of the employer
- Designed and implemented the module that uploaded employees' experience in the DB and Sphinx for the search system
- Developed incoming and outgoing proposals functionality
- Improved CVs and vacancies moderation functionality

(Go) (PHP 5/7) (Zend Framework 2) (Doctrine ORM) (PHP BC Math) (Docker) (Docker-compose) (Vagrant) (Ansible) (MySQL) (MongoDB) (JavaScript) (jQuery) (Gulp) (npm) (WebSockets) (RabbitMQ) (Sphinx Search) (SphinxQL) (JSON-RPC) (RESTful) (Nginx) (php-fpm) (Jenkins CI) (Phing) (GIT) (Bitbucket) (Cron) (Bash scripts) (Yandex Maps API) (AJAX) (Google API) (Facebook API) (VK API) (Odnoklassniki API) (OPcache) (Twitter Bootstrap)

- **Normativka.by, Minsk | SENIOR SOFTWARE ENGINEER | Oct. 2021 - Aug. 2024**

The portal allows to store, search, use, and manage legislative information that provides a full range of legal, analytical, and reference information for accountants, lawyers, economists, and human resources workers. The system has plenty of tools (advanced search of documents, counterparty information search, personal consulting service, thematic guides) that allow one to conveniently perform daily routines.

- Developed the updating of billing business logic
- Implemented automatic testing via the Codeception : acceptance (Selenium + Webdriver), functional and unit tests
- Designed and implemented the client installment payment system
- Implemented a bonus reward/deprivation system for the project sales department
- Implemented a lot of reports using SQL
- Implemented a trial access module to the service
- Developed Purchase Order Constructor
- Designed and implemented the system for selling a limited count of view documents
- Developed the module of managing support tickets

(PHP 5/7) (Zend Framework 2) (Selenium) (php-webdriver) (MySQL) (MariaDB) (JavaScript) (jQuery) (Vagrant) (Ansible) (Nginx)
 (Apache) (Codeception) (Memcached) (Phing) (SOAP) (GIT) (Bitbucket) (Unit testing) (Acceptance testing) (Integration testing)
 (Cron) (Debian)

Contribution and research

- **Kubernetes** | **GO DEVELOPER** | Jan. 2022 - pres.
 - **Implemented OIDC Test Server and test coverage** of the most critical OIDC cases. OIDC Test Server allows contributors to save time handling test cases and raise the quality of the K8S in terms of OIDC
 - **Resolved the issue of building listener rules** based on ingress manifests for the AWS Load Balancer
 - **Resolved the issue of premature deletion of uncompleted Kubernetes jobs**
 - Created "1 click" automation to raise the development local cluster with the ability to debug(using GoLand by JetBrains) every single component of K8S - API Server, Controller Manager, Scheduler, and Kubelet, that saving time for the creation of the K8S infrastructure for convenient debugging of full data flow across each K8S component
- **TLS implementation from scratch**

Education

Belarusian State University of Informatics and Radioelectronics | **2007 - 2012** | bachelor of Science in Faculty of Engineering and Economics

Certificates

- **CKAD: Certified Kubernetes Application Developer**, Certificate ID Number: LF-zngryw01g1
- **AWS Certified Solutions Architect**, Credential ID: QX2X2LMJJ141QK5P
- **Zend PHP Certification**, <https://www.zend-zce.com/en/yellowpages/ZEND030088>