# Oleksii Khilkevych, MSc

https://noroutine.me

### ABOUT ME

My focus is on providing first-class consultancy, using my background in tech and business.

Apart from solid technical background in classic Developer and DevOps roles, I have experience in Big Data Engineering, several big migrations of critical infrastructure, was lead in couple of projects and have trained small to large teams.

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I am able to speed up your digital transformation, can tackle, analyse and break-down high-level roadmap items, as well as advise on best practices in tech, compliance and security. Where required, I can train teams to help them cross technological barriers faster and at the same speed for all team members.

I'm very well aware of a huge gap between desire for faster yet controllable change at management level and actually having that agility within teams. The gap that is caused by tech or communication barriers, legacy toolset, isolated knowledge islands, regulations, process inertia and so on. I can shorten that gap for your particular case, advise on how to tackle it or kickoff the transformation myself.

The most important in crossing that gap for me is to maintain business continuity and steer the transformation in controllable way.

Open for on-site and remote projects

## Highlights

LIR (RIPE NCC, de.noroutine)

Highly successful datacenter high-availability setup for global payment company

Infrastructure migrations for leading payments services provider in Germany

Extensive development experience as Java, JavaScript and Golang developer, last years it was mostly Go Wrote projects in Java and Go, plugins and dynamic inventories for Ansible in Python, plugins for Jenkins in Java, plugins for Vagrant in Ruby, tools in Perl+GTK

Performed CI/CD infrastructure setup and maintenance from code for various setups, including Jenkins, Gerrit, Artifactory, Nexus and GitLab

Hands-on experience with containers on Nomad, Kubernetes in Docker, rkt and cri-o runtimes

Hands-on experience with automation tools (Puppet, Ansible, Terraform, Vagrant, Packer)

I am familiar with most cloud infrastructures (OpenShift 2/3, AWS, GCP, Bluemix, Heroku, CloudFoundry) and on-premises (VMWare, OpenStack)

Hands-on experience with development processes and tools like code reviews, git flow, as well as most development build tools

Database Administration (PostgreSQL in HA configurations with streaming replication, pgLogical or BDR) Performed virtualization infrastructure setup and maintenance from code(VMWare/Ansible/Terraform) and using my own templates baked with packer

Hands-on experience with all infrastructure backyard like load balancers, proxy servers, DNS servers, SMTP, custom packaging

Expert in Digital Certificates, maintained multi-level PKI and worked with custom OIDs among other things)

Hands-on Network and System Administrator from Internet and WAN down to edge devices

Experience with automating HSMs

Constantly trying new things and running my own lab infrastructure for experiments

Trained several teams on various topics, like Git, Gerrit, DevOps

Lead of several teams

Experience working in PCI-DSS regulated environment

Experience with GDPR implementation in several companies

- Languages: Golang, Java, Groovy, Python, JavaScript, SQL, Bash
- Web Frontend: JavaScript, TypeScript, React, Angular, CSS/SASS, jQuery, vanilla.js
- Backend: Go, node.js, Spring, Hibernate
- Databases: PostgreSQL, Mongo, Redis, ElasticSearch, Consul
- Platforms: AWS, GCP, Azure, OpenStack, VMWare, KVM/openvirt, vagrant, bare-metal
- Image Backing: packer, cloud-init, RedHat-based or Debian-based for VMWare, Virtualbox or clouds
- Automation/CI&CD: Ansible, Puppet, Terraform, Jenkins, GitLab CI, Travis
- Code Repo/Code Review: bare Git, GitHub, GitLab, Gerrit
- Artifact Repositories: Nexus, Artifactory
- Containers: Nomad, K8s, Docker, Docker Swarm, rkt, CRI-O, LXC
- Monitoring: Pingdom, Prometheus, m3db, Alerta, InfluxDB, ELK, Grafana, writing my own exporters
- Service Discovery: etcd, Consul
- DevSecOps: HashiCorp Vault, Ansible Vault, istio, GnuPG
- Data Analytics: Spark, Luigi, Jupyter, ELK
- Active LIR: ASN, IPv4, IPv6, IPAM, RDNS, RPKI
- CDN/Traffic Management: CloudFlare, Akamai, F5 GTM, anycast DNS
- Backbone Networking: LAN/WAN routing, xNAT, L2-L7 balancing, firewalls, L2/L3 switches, spine-leaf
- Core Networking: VLAN, VxLAN, GRE, BGP, OSPF, VRRP
- Network Protocols: TCP/IP, HTTP, DNS, LDAP, NTP, RADIUS, SMTP, SPF, DMARC, DKIM
- VPN: client-to-site and site-to-site IPSec, L2TP, OpenVPN, Wireguard, SD-WAN
- Centralized IDM: PAM, Kerberos V, OAuth, LDAP, RADIUS, client TLS, FreeIPA, Active Directory
- PKI: Root and Intermediate CA management, TLS1.2/1.3, OCSP, custom OID fields
- SAN: iSCSI (targetcli, 3par, Isilon), RDMA/RoCE, FibreChannel, Infiniband
- NAS: NFSv3/v4, Samba
- DAS: SAS/SCSI, all-flash arrays, RAID0/1/5/6/10
- Storage Clusters: vSAN, ScaleIO, DRBD, GlusterFS, Ceph, Minio
- Troubleshooting: System/Storage/Network performance, tcpdump
- Payments: Transactions, PSP integration, 3DSecure
- Security: Physical and Digital Security Advisory/Audit
- Compliance: GDPR, PCI DSS
- Human Languages: English (advanced with funny accent), German (B2), Ukrainian (native)

## • Noroutine GmbH — IT Consultancy, Recruiting & LIR Services

DevOps Engineer, Security Officer, Data Protection Officer, CEO

Munich, Germany Oct 2018 - Present

Designed from scratch, implemented as a code and maintaining complete infra: network, storage and computing infrastructure in hybrid cloud model, where our on-premises resources are transparently networked with GCP, Azure and Vultr resources.

Implemented GDPR compliance

Ongoing PoC on HA any cast application delivery gateway (DNS, IPv4/IPv6 multihomed, CDN and API gateway)

Conducted 2-month long PoC with Hivecell (https://hivecell.com/) under NDA on their Edge IoT platform to evaluate their readiness for hybrid cloud model

- **Tech Consulting**: As a tech consultancy we specialise in DevOps, Dev and Data Analytics, tough projects like infrastructure architecture in hybrid-,on-premise- and multi-cloud setup, migrations and many many more
- **Recruiting**: On a recruitment track we source and provide our clients qualified talent. I'm providing training and my expertise in DevOps, Security and GDPR. Also I am performing technical screening for all sourced candidates
- Compliance: As Security Officer and Data Protection Officer, I am maintaining internal security policies and ensuring GDPR compliance

# $\bullet$ Allianz Technology SE — Global Data Platform

Big Data DevOps Consultant

Munich, Germany
Oct 2019 - Mar 2021

GDP is a core Allianz platform for Data Analytics

As part of GDP I am working with Data Science Teams in Allianz to implement and maintain their pipelines in diverse technology stack

Providing technical expertise to implement GDP roadmap

Maintaining, improving and implementing GDP services and infrastructure on premises and Azure Architected and implemented from scratch multi-tenant highly-available containerised monitoring solution for 50+ Allianz OEs (most are Big Data Analytics environments) with alerting and long-term storage Wrote metrics exporters in Go for LDAP and NFS monitoring, as openly available solutions didn't meet the business requirements

Some of tools and stacks, among many many involved: Prometheus, m3db, Alerta, ElasticSearch, Nomad, Ansible, K8s, Terraform, Grafana, Spark, Kafka, Confluent, Luigi, Jupyter, RStudio, Zeppelin, Azure

# • ACI Worldwide, Inc. — Banking & Payments Solutions DevOps Consultant

Naples, Florida, United States Oct 2018 - Oct 2019

I went on with ACI as a contractor on AHS project to introduce active-hotstandby cross-datacenter traffic switchover for production environment with over 300 peak tps

The project goal was to reduce customer-facing incident impact during major platform outages. In case of major incident in live processing datacenter, the automated solution is supposed to detect failure condition and switchover complete transaction processing to DR site.

My particular responsibility was two-fold: 1) to implement tooling for controlled manual and automated switchovers, and 2) monitoring solution coupled with rule engine, that would trigger switchover on particular predefined condition.

The tooling was implemented in Go and consists of CLI interface for various platform components to orchestrate switchover across platform components, and witness daemon for proactive monitoring and incident detection.

Part of witness daemon is a rule engine, that detects failure condition and performs automated failover if condition is met

The tooling was designed to be clustered HA solution with safety measures to assist teams with DR exercises and gracefully handle maintenance windows

# • PAY.ON AG / ACI Worldwide Germany GmbH — Banking & Payments Solutions Munich, Germany Senior Software Engineer (DevOps) Sep 2014 - Oct 2019

I joined PAY.ON as first DevOps Engineer in a strict security oriented and PCI-regulated startup with large legacy code base and left a team with great DevOps mindset and modern stack

My core activities at PAY.ON/ACI over 5 years were around improving tooling and infrastructure, infrastructure migrations, driving forward DevOps roadmap, mentoring new hires, strengthening interactions among teams and nurturing DevOps culture.

#### o Completed projects with direct involvement:

Migration of source code with 10k+ unit tests from Subversion to Git

Migration of build systems in 3 large source bases from Ant to Gradle

Setup and maintenance of Gerrit instances

Setup and maintenance of Artifactory instances

Setup and maintenance of dev Jenkins clusters

Migration of Jenkins jobs to Jenkins Job DSL

Development and maintenance of Vagrant-based Development VM for 50+ developers

In-house release tooling improvements and maintenance

Production environment migration to new datacenter

Datacenter switchovers and creating of tooling for it

Jira migration to ACI Active Directory

UltraDNS/Pingdom management CLI in Go (reliable and fast live traffic redirection)

Migrated internal inventory tool to Perl+GTK3

### o Trainings, PoCs, code retreats, hackatons:

Training around 50 developers on Git

Conducted weekly code retreats around DevOps topics

Conducted numerous PoCs on K8s, containerization, virtualization, automation, took part in hackatons

Kubernetes PoC for dev infrastructure, comparing docker and crio

OpenStack internal hackaton on creating vms from templates

VMWare automation PoC (creating VMs from PCI-compliant templates with help of custom Ansible module)

PCI-compliant VM template built with packer

Containerization internal hackaton to run one of our core projects on Kubernetes

Jenkins Xray plugin PoC (tracks code Test coverage for every Git commit)

Ansible dynamic inventory PoC (provides Ansible with entries from or internal server inventory database)

Docker Swarm PoC (prototyped our complete dev infra in containers)

Unified server/dev vm template that can be continuously delivered to provide developers and operations with single-image compliant base VM, that can be reused in Vagrant, VMWare, OpenStack and AWS

Corosync binding for Go (to interface with corosync/pacemaker from Go code)

#### • 9 more projects on request

as Full-Stack Developer, DevOps, System Administrator, Team Lead

Sep 2003 - Sep 2014

#### Publications

#### • About Taxes in Ukraine (in Ukrainian)

September 2020 for https://dou.ua/

Analysis of tax changes in Ukrainian IT

https://dou.ua/lenta/columns/stop-giving-milk-for-free/

## • What Constitutes a Senior (in Ukrainian)

June 2020 for https://dou.ua/

Breaking down what values shall a Senior professional have

https://dou.ua/lenta/columns/senior-middle-junior-comparison/

#### **EDUCATION**

## • Igor Sikorsky Kyiv Polytechnic Institute

Kyiv, Ukraine *May 2009*