

# Krzysztof Nazarewski

KUBERNETES/CLOUD ENGINEER · DEVOPS/AUTOMATION/DEVEX ENGINEER · PYTHON/Go/IAC DEVELOPER

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*Proficient with infrastructure & programming, passionate about automation & development experience.*

## Summary

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I have 3 roughly equivalent paths of professional development.

I am striving to build highly automated, scalable and cloud-agnostic platform covering the whole software development lifecycle: starting with ergonomic local development through efficient test environments and CI/CD leading to secure, observable and highly available production. I keep exploring the Infrastructure as a Code, automation tooling, Kubernetes and Nix ecosystems to achieve those goals.

I feel great working on Developer Experience topics such as internal tooling and process automation.

I would also be happy to gradually slide back into programming-focused roles and learn a new language such as Elixir, Rust or maybe even Haskell.

## Skills

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<b>Programming</b>	Primary: Python, Go, shell/bash, Nix; Basics: JavaScript, Lua, Java, CUE; Aspiring: Rust
<b>CI/CD</b>	Argo CD/Workflows, Gitlab, CircleCI, Bitbucket, Luigi
<b>Security</b>	Vault, Netbird/Wireguard, authenticated/private infrastructure, unprivileged system services
<b>IaC</b>	Terraform (incl. writing providers), NixOS, GitOps
<b>Containers</b>	nix, docker, podman, buildkit, skopeo, buildah
<b>Kubernetes</b>	Talos, Rancher, k3s, EKS
	Helm, Kustomize, actively exploring config management improvements/alternatives
	AWS - experienced in: core workloads, IAM, multi-account, Go/Python SDKs),
<b>Clouds</b>	GCP - basics of IAM & containers, Azure - basics of IAM, core workloads and automation,
	Hetzner
<b>Observability</b>	Elasticsearch/Opensearch, OpenTelemetry, Fluentd, Prometheus, Datadog
<b>Backend</b>	Python: Django REST Framework, asyncio/trio, Celery, PostgreSQL, Redis
<b>Languages</b>	Polish, English, basic mandarin

## Education

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### Warsaw University of Technology

Warsaw, Poland

B.S. IN COMPUTER SCIENCE AND SOFTWARE ENGINEERING

2011 - 2015, grad.2018

Bachelor's Thesis - *Implementing Kubernetes cluster on diskless machines*

## Experience

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### Personal projects

HOMELAB

Dec 2025 - ...

- ops: deploying Kubernetes on top of NixOS machines,
- programming: rewrote various bash tooling into a single coherent kdnctl Go program,
- automation: almost fully automated bootstrapping of new NixOS machines,
- nix: integrated reliable distributed Nix builds for aarch64-darwin & aarch64-linux on Mac Mini,
- misc: evaluated NixOS VMs on top of Android Virtualization Framework,

## NetBird

Warsaw, Poland

### SOLUTIONS ARCHITECT | TECHNICAL SUPPORT ENGINEER

- Helped customers troubleshoot networking problems across variants of Linux, MacOS, Windows and firewalls,
- Analyzed customer organization's configuration and helped them design a solution that would work best for their use case,
- Set up Zammad Helpdesk with n8n integrations to better keep track of and aggregate communication channels,
- Acted as a user advocate to the team, helped identify and address various types of usability issues and inconsistencies,
- Worked out an efficient log browsing system utilizing Inav and a custom logs processor written in Go,
- Expanded and maintained product documentation,
- Used different VMs to test the product and reproduce customer issues,

## Personal projects

### HOMELAB

Jan 2025 - Feb. 2025

- nixos: refined a selectively-persistent NixOS setup and onboarded new and existing machines onto it,
- networking: built up NixOS-backed dual-stack router configuration with VLANs,
- virtualisation: tried out UTM on Mac Mini to run MacOS and NixOS VMs for arm64,
- misc: got a minimal Home Assistant setup running on NixOS on Raspberry Pi 4 with a few HATs,
- ops: attempted to integrate Talos Kubernetes into the new network,

## Signicat

Warsaw, Poland

### CLOUD | DEVEX ENGINEER

Sep. 2023 - Dec. 2024

- Working in a small team of 5-8 professionals purpose-hired to assimilate infrastructure into company-wide platform after acquisition,
- Started with infrastructure best described as: too large for creators and (then) our new 4 person team, highly utilized, poorly automated, outdated, highly heterogeneous (k8s, mesos, cloud, on-prem),
- Were primarily concerned with keeping lights on while improving maintainability as much as feasible given the circumstances,
- Personally focused on automation of legacy systems and actively exploring & building understanding of company landscape to start integrating with shared GCP platform,
- In a few months we have improved it enough to be actively maintainable by 2 (rotating) people while the rest of team advances features,
- Deployed some assisting services on the GCP Cloud Run,

## Personal projects

### HOMELAB

June 2024 - Aug. 2024

- Worked part-time during less active summer period to jumpstart a storage/backup cluster & self-assembled router,
- Made a first attempt with a set of Raspberry Pi 4s, but resource constraints made it impossible to run Ceph,
- Built 3 NAS machines then formed them into Talos cluster,
- Added simple secret management & made repository public: [nazarewk-iac/talos-configs](#),
- Implemented Nix-built workloads for immediate development feedback loop,
- Implemented ZFS-backed local storage with a mix of ZFS disk encryption/management scripts & OpenEBS,
- Implemented node-level Netbird VPN for remote access,
- Deployed proof of concept Ceph/Rook network storage cluster to figure out missing pieces,
- Started integrating Cilium for networking layer,
- Upgraded to IPv4+IPv6 ISP, purchased networking equipment and implemented a router on top of a NixOS module system, see [the code](#),

## Incredevo

Warsaw, Poland

### DEVOPS | CLOUD ENGINEER

Oct. 2022 - Aug. 2023

- Outsourced part-time (100h/mo) as the only cloud engineer in client's company. Was primarily responsible for implementation from scratch and upkeep of their EKS-based AWS infrastructure,
- Started by automating and forcing the build process to be reproducible for 15 Java applications without versioning packaged into 8 containers,
- Researched, evaluated, debugged and sometimes fixed various open-source tools written primarily in Go,
- Started from zero building up AWS-based Kubernetes infrastructure automated with Terraform/Terragrunt,
- Finished with VPN-accessible private clusters with integrated cloud controllers, cluster autoscaler, telemetry, ingress, CI/CD, local development,
- Rewritten the build process to spotify/luigi for a local execution and easier handover,
- Prepared a NixOS-based EC2 instance capable of running all the tooling to be used as a last-resort when local setup breaks,

## Fresha

Warsaw, Poland

### DEVOPS | DEVEX

Nov. 2021 - Oct. 2022

- Member of a team focusing on increasing development velocity through CI/CD process and developer's experience improvements,
- Successfully cut Datadog monitoring costs by a third through refining gathered data,
- Worked primarily on complete redesign and simplification of existing - organically acquired over the years - complex processes,
- The job involved identifying, measuring and debugging performance and operational issues on very large (30-60 envs, 20+ apps each, multiple deployments per hour) EKS cluster dedicated to staging environments,
- Set up new deployment and secrets management flow using: ArgoCD, External Secrets Operator and a set of Python scripts for the GitOps repository management & optimization,

## BEC Poland

Warsaw, Poland

### DEVOPS | CLOUD ENGINEER

July 2020 - Oct. 2021

- Introduced 5 man team to: Terraform, pytest and Terraform SDK,
- Introduced team to and provided guidance for custom Terraform providers implementations,
- Participated in design and implementation of company-wide Azure based cloud platform,
- Tested infrastructure with pytest and pytest-bdd (Python implementation of Behaviour Driven Development/Gherkin),
- Designed and implemented shared testing library to be used by the team and customers,
- Designed and implemented developer's environments using: Packer, Vagrant, VirtualBox, Azure DevTest Lab,

## GFT Poland

KUBERNETES ADMINISTRATOR | DEVOPS | CLOUD ENGINEER

Warsaw, Poland

Jan. 2019 - June 2020

- Introduced 6-man team to Terraform and Kubernetes,
- Actively participated in designing GCP infrastructure before moving off to AWS,
- Participated in fast-paced infrastructure development in a large team (tens of cloud engineers),
- Participated in development, automation and coordination of workflow across many programming teams and projects,
- Was the only person responsible for deploying, configuring and managing pre-production Rancher 2 based Kubernetes clusters,
- Implemented a cluster reconciliation & auto-scaling loop in Python deployed to AWS Lambda,
- Automated infrastructure development workflows including mass-execution, validation and automation for Terraform,
- Achieved close to zero-downtime deployments by working with development teams,
- Integrated a few systems with Okta identity provider,
- Coped with being forced to use the most available Istio features from the start without gradual implementation one-by-one,
- Used/integrated with: OPA Gatekeeper, Datadog, Artifactory, CircleCI, GitHub, Spinnaker,

## Daftcode

Warsaw, Poland

PROJECT CTO | PYTHON DEVELOPER | LINUX ADMINISTRATOR | DEVOPS

Jun. 2016 - Dec. 2018

- Started as the most experienced backend developer on the team with some sysadmin skills, then gradually moved to full-time infrastructure administration and devops role,
- Developed a small Django backend application written by an intern into a dynamically growing project,
- Started by modernizing, redesigning and gradually reimplementing it without (user) interruptions on top of modern tooling,
- Migrated on-premise infrastructure to semi-automated environments (production and development) on top of AWS EC2,
- Streamlined deployments and in-app error gathering/reporting,
- Identified, then fixed bugs and accounting discrepancies using ELK stack data analysis,
- Achieved zero-downtime deployments,
- Implemented live performance monitoring and alerting in form of Kiosk-style dashboard at the office backed by Raspberry Pi,
- Implemented and hardened the infrastructure on top of kops-based Kubernetes cluster,

## 10Clouds

Warsaw, Poland

DJANGO / FULL-STACK DEVELOPER

Aug. 2015 - May 2016

- Created tests for then migrated an existing Django REST Framework & PostgreSQL tenants based SaaS from Python 2 to Python 3,
- Developed and maintained above mentioned backend and occasionally frontend
- Designed and implemented Django REST Framework based backend in another project,

## JMR Technologies

Warsaw, Poland

LEAD PYTHON DEVELOPER

Nov. 2014 - Jun. 2015

- Was primary Python developer in a company newly adopting Python for selected projects,
- Designed and implemented of Django based CRM,
- Gave occasional assistance to the Odoo team,

## Freelance project

Poland

FULL-STACK SOFTWARE DEVELOPER

Apr. 2014 - Jun. 2015

- Implemented and deployed Django REST Framework backed CMS/knowledge base,
- Implemented JavaScript (Dojo Toolkit 1) based desktop application (TideSDK, NW.js, then Electron) backed by aforementioned backend.

## OPEN SOURCE CONTRIBUTIONS

- Go: [prometheus/prom2json](#): implement reading metrics from stdin or file (only URLs were supported),
- Go: [netbirdio/netbird](#) VPN: fixed and tested errors with network routing,
- Go+k8s: [kubectl drain](#) improvements helping with cleanly scaling down cluster to zero,
- Go+k8s: [gitops-engine/Argo CD](#) add proper handling when etcd hiccups (eg: GC) occur,
- Go+k8s: [helm/chart-testing](#): implementing passing of additional flags to helm command,
- Go+k8s: [rook](#): enabled support for running on NixOS by adding NixOS-specific PATH,
- Go+tf+k8s: [terraform-provider-kustomization](#) added handling of remaining kustomize flags,
- Go+TF: [terraform-provider-vault](#): improved handling of groups and policies assignments,
- Go+TF: created [daftcode/terraform-provider-scripted](#) as a first touch with Terraform and Go,
- Go+TF: created [nazarewk-iac/terraform-provider-custom](#) refined and properly designed implementation of above,
- Python+AWS: [Nike-Inc/gimme-aws-creds](#): large refactor to enable using the tool in CI and as a library,
- Nix: various contributions to and packaging fixes for [NixOS/nixpkgs](#),
- Nix+containers: [devenv](#): enable building containers in CI using Nix's Flakes,