

Krzysztof Dariusz Nazarewski

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

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Education

Warsaw University of Technology

B.S. IN COMPUTER SCIENCE AND SOFTWARE ENGINEERING

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

Warsaw, Poland

2011 - 2015, grad.2018

Skills

Programming	Primary: Python, Go, shell/bash, Nix; Basics: JavaScript, Lua, Java, CUE; Learning: Rust, Nickel
CI/CD	Argo CD/Workflows, Vault, Gitlab, CircleCI, Bitbucket, Luigi
Security	Vault, Netbird/Wireguard, authenticated/private infrastructure
IaC	Terraform (incl. writing providers), NixOS, GitOps
Containers	docker, podman, buildkit, skopeo, buildah
Kubernetes	Rancher, EKS, AWS Cloud Controllers, Karpenter, VPA
Observability	Elasticsearch/Opensearch, OpenTelemetry, Fluentd, Prometheus, Datadog
AWS	SDK (Python, Go), Route53, VPC, EC2, SSM, ASG, IAM, S3, Lambda, EKS and other EKS-assisting services
Backend	Python (Django REST Framework, asyncio/trio, Celery), PostgreSQL, Redis
Languages	Polish, English, basic mandarin

Experience

Incredevo

DEVOPS | CLOUD ENGINEER

Warsaw, Poland

Oct. 2022 - Aug. 2023

- Outsourced part-time (100h/mo) as the only cloud engineer in client's company. Was responsible for implementation from scratch and upkeep of their EKS-based AWS infrastructure,
- Researched, evaluated, debugged and sometimes fixed various open-source tools written primarily in Go,
- Built up AWS infrastructure from zero using Terraform/Terragrunt,
- Set up infrastructure to be deployed to private VPC and accessible through Netbird VPN,
- Set up Bottlerocket based EKS cluster configured using kustomization Terraform provider with all the usual cloud controllers,
- Set up observability stack using Opensearch, OpenTelemetry and Prometheus,
- Set up NLB-based APISIX Ingress Controller with automatic certificates using cert-manager,
- Set up Argo Workflows for CI/CD,
- Set up rootless container builds in Argo using buildkit or devenv.sh (Nix),
- Set up devenv.sh based local development environment,
- Set up cluster (Karpenter) and workflows (VPA) autoscalers for cost optimization and automation,
- Rewritten Argo Workflows build project (14 Java/Maven apps) to build locally without external services using spotify/luigi,

Fresha

DEVOPS | DEVEX

Warsaw, Poland

Nov. 2021 - Oct. 2022

- Member of a team focusing on improving development velocity through CI/CD process and developer's experience improvements,
- 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) EKS cluster dedicated to staging environments,
- Set up new deployment and secrets management flow using: ArgoCD, External Secrets Operator and set of Python scripts for repository management,

BEC Poland

DEVOPS | CLOUD ENGINEER

Warsaw, Poland

July 2020 - Oct. 2021

- Introduced 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 cloud platform,
- Worked with Azure cloud using Terraform and Python SDK,
- 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

Warsaw, Poland

KUBERNETES ADMINISTRATOR | DEVOPS | CLOUD ENGINEER

Jan. 2019 - June 2020

- Introduced team to Terraform and Kubernetes,
- Participated in fast-paced infrastructure development in a large team,
- Participated in development, automation and coordination of workflow across many programming teams and projects,
- Was sole person responsible for deploying, configuring and managing Kubernetes clusters,
- Provided initial deployment and guidance for Hashicorp Vault, ELK stack and Prometheus,
- Deployment and management of Kubernetes cluster backed by Rancher (Custom Nodes) on AWS EC2,
- Implemented AWS Lambda function overseeing Kubernetes cluster nodes with assistance of AutoScaling Groups,
- Implemented infrastructure development workflow including mass-execution, validation and automation for Terraform,
- Implemented in-cluster network monitoring solution using Calico (iptables) logs and Prometheus,
- Implemented Kubernetes cluster extensions and validation using Webhooks and Custom Resources,
- Used/integrated with: Gatekeeper, Istio, Spinnaker, Okta, Datadog, Artifactory, CircleCI, GitHub,

Daftcode

Warsaw, Poland

DEPARTMENT CTO | SOFTWARE ARCHITECT | PYTHON DEVELOPER | LINUX ADMINISTRATOR | DEVOPS

Jun. 2016 - Dec. 2018

- Started as a software architect and a backend developer with some operational skills, then gradually moved to full-time infrastructure administration and devops role,
- Developed application's prototype (Python 2, Django) into a dynamically growing project,
- Implemented fully self-hosted infrastructure - without third party services,
- Designed from ground up then migrated existing codebase to the new implementation based on Python 3, Django REST Framework and Celery,
- Migrated manually managed on-premise environment to semi-automated (Ansible and Supervisor) deployment onto AWS EC2 split into production and development environment,
- Unified error reporting with Sentry and streamlined deployment with BuildBot + Ansible,
- Implemented SSH based infrastructure access management with quick access revocation and automated setup of team's machines,
- Configured data analysis and monitoring with ELK stack,
- Configured zero interruption deployments with uWSGI zerg mode,
- Configured live performance monitoring and alerting with ELK stack and Prometheus,
- Created terraform-provider-scripted,
- Implemented single-command Kubernetes cluster deployment and management using Terraform, kops and Python scripts,
- Implemented Kubernetes cluster hardening: private network, NetworkPolicy, PodSecurityPolicy, kube2iam, in-cluster SSL authentication, etc.,
- Deployed on Kubernetes: Docker Registry, Helm, S3-backed Vault and Gitlab, cert-manager, Prometheus stack, metrics-server, efs-provider, etc.
- Implemented application infrastructure deployment onto Kubernetes based on Gitlab CI and Helm.

10Clouds

Warsaw, Poland

DJANGO DEVELOPER

Aug. 2015 - May 2016

- Tested 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: Angular 1.3, CoffeeScript, ES6, SASS
- Designed and implemented Django REST Framework based backend,

JMR Technologies

Warsaw, Poland

LEAD PYTHON DEVELOPER

Nov. 2014 - Jun. 2015

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