Maxat Akbanov

Senior DevOps | Cloud Engineer

maxat-akbanov.com

Languages:
English – Fluent (Professional working proficiency)
Russian – Native
Kazakh – Native
Spanish – Intermediate

Education:
The University of York, UK — MSc in Cyber Security (with Distinction), 2016–2017
Kyiv Polytechnic Institute, Ukraine — BSc in Information and Communication Systems Security (with Distinction), 2007–2011

Professional Skills and Abilities:
10+ years of commercial experience in System Administration, DevOps and Cloud Engineering
Proven experience designing and building cloud infrastructure from the ground up, ensuring high availability and scalability
Extensive experience working independently as sole DevOps engineer on client engagements, as well as within cross-functional teams of up to 20+ specialists
Strong experience taking over, auditing and maintaining existing infrastructure and code left by previous teams
Experience in L3 production support, on-call incident management and root cause analysis
Direct experience communicating with clients and stakeholders across multiple industries
AWS Certified Solutions Architect – Associate, AWS Certified Developer – Associate, HashiCorp Certified: Terraform Associate
Quick to adopt new technologies and cloud platforms under tight deadlines

SKILLS AND ABILITIES

Programming Languages:

- Python
- Bash
- Groovy
- Go
- JavaScript / Node.js

Operating Systems:

- Ubuntu
- CentOS
- Amazon Linux 2023

Tools & Technologies:

- CI/CD: GitLab CI/CD, TeamCity, Jenkins, GitHub Actions, Bitbucket Pipelines
- Version Control: Git, GitHub, GitLab, Bitbucket
- Containers & Orchestration: Docker, Docker Compose, Kubernetes, Kubespray, Helm, Karpenter
- GitOps: ArgoCD, Flux
- IaC & Automation: Terraform, OpenTofu, Terragrunt, Ansible, AWS CloudFormation
- Monitoring & Logging: Prometheus, Grafana, Loki, ELK, Zabbix, Nagios, DataDog, AWS CloudWatch, Tempo
- Databases & Caching: PostgreSQL, MySQL,

MariaDB, DynamoDB, Redis, ElastiCache
- Message Brokers: Redis, AWS SQS, RabbitMQ
- Web Servers: Nginx, Apache
- Cloud Platforms: AWS (EC2, RDS, EKS, ECS, Lambda, S3, VPC, Route53, CloudFront, WAF, API Gateway, Secrets Manager, Step Functions, SSM, ECR, ACM, Bedrock), Azure Functions, GCP (Apigee), Heroku, Scaleway
- Security & Testing: Trivy, SonarQube, Gitleaks, SOPS, pre-commit, OWASP ZAP, Terratest, Hadolint, Vault, Kubescape, Kyverno
- AI: AWS Bedrock, MCP, Python Strands SDK, A2A implementation
- Other: Magento, PHP, Ruby rake, Nexus Sonatype, Apache Maven, kubecost, BMC Automation

PROJECTS

Management of Retail Store Kubernetes Infrastructure (One of the Largest Retail Store Networks in Kazakhstan)

Project Period	04.2026 – Present
Industry	Retail
Role	DevOps Engineer
Project Description	Management of diverse on-premises Kubernetes clusters and internal developer services for one of the largest retail store networks in Kazakhstan. Migrated internal projects from kubectl-based deployments to a GitOps approach using ArgoCD and Helm.
Key Responsibilities & Achievements	Migrated internal services to new Kubernetes clusters and ArgoCD-based deployment processes Providing ongoing infrastructure support and developer support Security audit of CI/CD processes and Kubernetes environments
Technologies Used	ArgoCD, Helm, GitLab, Harbor, Docker, Rancher, k8s (kubeadm), Graylog, Grafana, Kubescape, Kyverno

Automated Invoice System — Waste Management (US Customers)

Project Period	08.2025 – 03.2026
Industry	Environmental Services / Waste Management
Role	DevOps Engineer
Project Description	Automated invoicing platform for a US-based

	waste management company. Deployed on AWS ECS using a blue-green deployment strategy to enable zero-downtime releases across staging and production environments.
Key Responsibilities & Achievements	Refactored and fixed the client's existing TypeScript AWS CDK infrastructure code Automated application deployment via AWS ECS Blue-Green deployment Designed and tested deployment pipelines to Production and Staging AWS accounts Authored developer-facing documentation for the deployment process Provided ongoing infrastructure support and maintenance
Technologies Used	AWS ECS, Docker, GitHub, AWS CDK (TypeScript)

EU Based E-Commerce Company

Project Period	07.2025
Industry	Online Retail (E-Commerce)
Role	DevOps Engineer
Project Description	Fixed and completed the deployment pipeline for a Next.js web application into an existing AWS ECS cluster, taking over unfinished work left by the client's previous development team.
Key Responsibilities & Achievements	Reviewed the existing deployment setup left by the previous development team Fixed and stabilized the deployment of the Next.js application to the ECS Cluster Automated the deployment via GitLab CI Created documentation on ECS deployments for the development team
Technologies Used	AWS ECS, Docker, Next.js, GitLab CI

AI Startup — Unified Monitoring

Project Period	06.2025 – 07.2025
Industry	Technology / AI Startup
Role	DevOps Engineer
Project Description	Implemented a unified observability solution for an early-stage AI startup, consolidating logs and metrics from AWS and third-party SaaS tools into a single DataDog-based monitoring stack, together with centralized secrets management.
Key Responsibilities & Achievements	Implemented a unified monitoring solution based on DataDog to collect logs and metrics from AWS and third-party services Integrated AWS App Runner with DataDog

	Integrated third-party paid services (Clerk, LiveBlocks, Netlify, PortKey, iOS Sentry) with DataDog Implemented a secrets management flow based on Doppler and AWS Secrets Manager Automated all DataDog dashboards and AWS App Runner monitoring configuration via Terraform modules
Technologies Used	AWS App Runner, Terraform, DataDog, Clerk, LiveBlocks, Netlify, PortKey, iOS Sentry

Mobile Gaming Platform — GPU Compute Migration

Project Period	03.2025 – 04.2025
Industry	Mobile Gaming
Role	DevOps Engineer
Project Description	Migration of GPU-dependent compute workloads for a mobile gaming platform from AWS Lambda to a dedicated Amazon EKS cluster, enabling scalable GPU-accelerated processing.
Key Responsibilities & Achievements	Designed and implemented a Terraform module for an AWS EKS cluster with Managed Node Groups running GPU-based EC2 instances Configured Karpenter for dynamic autoscaling of GPU workloads Implemented Bitbucket Pipelines for infrastructure and application deployment Tested and validated GPU workloads on EKS together with the client's development team Wrote Dockerfiles for applications running on EKS
Technologies Used	Bitbucket, Terraform, AWS EKS (Kubernetes), Karpenter, EC2, SQS, S3, DynamoDB, Lambda, Helm

Digital Productivity Management System — FSx NetApp PoC

Project Period	03.2025
Industry	Productivity Software / SaaS
Role	DevOps Engineer
Project Description	Delivered a proof of concept for AWS FSx for NetApp ONTAP shared storage for a digital productivity management system, including a demo application and GitOps-based deployment.
Key Responsibilities & Achievements	Implemented a Terraform module for a proof-of-concept AWS FSx NetApp ONTAP storage solution Created a demo application and deployed it to FSx via GitOps Validated and tested the proof of concept together

	with the client
Technologies Used	BitBucket, Terragrunt, AWS FSx NetApp ONTAP, ArgoCD, Helm, AWS EKS (Kubernetes)

E-Commerce Store — Magento Cloud Migration

Project Period	02.2025 – 03.2025
Industry	Online Retail (E-Commerce)
Role	Solutions Architect
Project Description	Designed the migration strategy for an on-premises Magento e-commerce platform to AWS Cloud, including cost analysis and a detailed implementation roadmap.
Key Responsibilities & Achievements	Examined the client's existing on-premises infrastructure Planned and prepared a solution architecture for migrating Magento to AWS Cloud Calculated the total cost of ownership (TCO) of the migration Prepared a detailed migration plan with implementation steps Estimated the total effort (man-days) required for the project Finalized the migration plan with the client
Technologies Used	Magento, OpenSearch, PHP, WAF, CloudFront, SSM, EC2, ElastiCache, S3, Terraform

B2B Digital Marketing — Database Migration

Project Period	01.2025 – 02.2025
Industry	Digital Marketing / B2B SaaS
Role	DevOps Engineer
Project Description	Migrated a B2B digital marketing platform's database and application from Scaleway and Heroku to AWS RDS PostgreSQL, including full infrastructure automation and CI/CD setup.
Key Responsibilities & Achievements	Planned the database and application migration from Scaleway and Heroku to AWS RDS PostgreSQL Implemented an RDS module via Terraform and Terragrunt Prepared and tested the AWS cloud infrastructure Wrote Dockerfiles for the applications Migrated databases to AWS RDS via psql Tested the database and application migration to AWS Set up GitHub Actions CI/CD pipelines Documented the migration steps

	Troubleshot issues together with the client's developers
Technologies Used	GitHub Actions, AWS RDS PostgreSQL, Heroku, Scaleway, EC2, S3, Terraform, Terragrunt, Docker, ECR, EKS, ArgoCD, Helm

Educational Platform (EdTech)

Project Period	08.2024 – 12.2024
Industry	EdTech
Role	DevOps Engineer
Project Description	STEM-focused online learning platform built on AWS cloud infrastructure with a GitLab CI/CD-driven delivery pipeline, supported by a cross-functional team of 19 specialists.
Key Responsibilities & Achievements	Set up and maintained AWS cloud infrastructure for the platform Configured and maintained GitLab CI/CD pipelines for build and deployment Maintained and improved Terraform infrastructure-as-code Troubleshot and resolved CI/CD pipeline issues Implemented security best practices across the infrastructure Deployed staged releases across environments Produced and maintained technical documentation
Technologies Used	GitLab CI/CD, Terraform, Ansible, AWS (EC2, RDS PostgreSQL, Secrets Manager, CloudWatch, ECR, VPC, NAT Gateway, SSM), Python, Bash, JavaScript, Node.js, Nexus Sonatype

Global Waste Management Platform

Project Period	02.2024 – 07.2024
Industry	Environmental Services / Waste Management
Role	DevOps Engineer
Project Description	Digitized recycling and waste management platform for a global industry leader, combining on-premises Kubernetes infrastructure with Azure Functions and a Prometheus/Loki/Grafana monitoring stack, supported by a team of 20+ specialists.
Key Responsibilities & Achievements	Optimized Azure Functions for performance and cost Supported and maintained CI/CD pipelines in TeamCity Managed an on-premises Kubernetes cluster

	Wrote and maintained Ansible configuration for environment provisioning Prepared environments and supported release processes Implemented monitoring with Prometheus, Loki and Grafana
Technologies Used	TeamCity, Kubernetes, Kubespray, Helm, Loki, Prometheus, Grafana, Terraform, Ansible, Azure Functions, Bash, Python, Redis, Nginx, Gitleaks, MetalLB

Online Casino Management Platform

Project Period	07.2022 – 01.2024
Industry	Gambling / Online Casino
Role	L3 Support Engineer
Project Description	Provided L3 production support for a large-scale online casino game operations platform, handling incident management, monitoring and infrastructure configuration for a team of 15 specialists.
Key Responsibilities & Achievements	Performed incident management and root cause analysis Provided 24/7 on-call production support Analyzed logs using Zabbix and Kibana Configured virtual machines via Ansible Maintained Jenkins CI/CD pipelines Issued and managed SSL certificates Produced operational documentation
Technologies Used	Jenkins, GitLab, Kibana, Loki, Zabbix, Prometheus, Grafana, Ansible, PostgreSQL, Bash, Python, DBeaver, SSL

Global Financial Data Provider

Project Period	05.2022 – 12.2023
Industry	Financial Services / FinTech
Role	DevOps Engineer
Project Description	Supported infrastructure and CI/CD pipelines for a global financial analytics and index data delivery platform, for a team of 10 specialists.
Key Responsibilities & Achievements	Responded to on-call production issues Maintained Jenkins pipelines Built and maintained AWS infrastructure with Terraform and Ansible Wrote automation scripts in Groovy Maintained DataDog monitoring Managed secrets using HashiCorp Vault

Technologies Used	Jenkins, Bitbucket, DataDog, Terraform, Ansible, AWS (RDS, EC2, S3, Route53, SQS, Secrets Manager, Step Functions), Groovy, Bash, Python, Vault, BMC

Ioka LLP — Online Payment System

Project Period	11.2021 – 05.2022
Industry	FinTech / Payment Processing
Role	DevOps Engineer
Project Description	Built CI/CD and cloud infrastructure for an online payment system serving businesses in Kazakhstan, for a team of 8 specialists, including PCI DSS compliance requirements.
Key Responsibilities & Achievements	Set up GitLab CI/CD pipelines for applications Set up an AWS EKS cluster with Terraform Built testing pipelines in Python and Node.js Ensured PCI DSS compliance Configured secure access via OpenVPN Managed secrets via AWS Secrets Manager
Technologies Used	GitLab CI, Docker, Terraform, AWS (EKS, Secrets Manager), Bash, Python, JavaScript, Node.js, OpenVPN

Industrial Platform — Petroleum Site Exploration

Project Period	11.2020 – 11.2021
Industry	Oil & Energy
Role	DevOps Engineer
Project Description	Supported CI/CD and testing automation for a petroleum site exploration platform, for a team of 20+ specialists, including GCP Apigee API development.
Key Responsibilities & Achievements	Developed GCP Apigee API endpoints Implemented CI/CD pipelines Configured unit and integration test automation Built Terraform-based infrastructure automation
Technologies Used	GitLab CI, Terraform, GCP (Apigee), JavaScript, Mocha, Cucumber, Maven

KazakhTelecom — Subscriber Internet Quality Monitoring

Project Period	11.2019 – 11.2020
Industry	Telecom
Role	System Administrator
Project Description	Built a monitoring system to track subscriber internet quality across Kazakhstan for a team of 3 specialists, combining IoT devices with a Zabbix/Grafana-based observability stack.

Key Responsibilities & Achievements	Built a Zabbix and Grafana-based monitoring system Set up IoT devices (Raspberry Pi) for data collection Developed monitoring dashboards Wrote Python scripts for network quality metrics
Technologies Used	Ubuntu Server, Zabbix, Grafana, Python (iperf), Raspberry Pi

Kazakhstan Government Department

Project Period	07.2011 – 11.2019
Industry	Government Administration
Role	Security Analyst
Project Description	Secured public and military digital systems and communications for a government department, as part of a team of 20+ specialists. Project details are under NDA.
Key Responsibilities & Achievements	Protected government communications systems Implemented secure technology solutions Monitored for security threats Conducted cybersecurity audits
Technologies Used	Under NDA

📚 Scientific Papers & Conference Talks

📝 **Akbanov, M., et al.** (2019). *Ransomware Detection and Mitigation using Software-Defined Networking: The Case of WannaCry*. Computers & Electrical Engineering, 76 (June 2019)
📝 **Akbanov, M., et al.** (2019). *WannaCry Ransomware: Analysis of Infection, Persistence, Recovery Prevention and Propagation Mechanisms*. Journal of Telecommunications and Information Technology
🗣️ AWS CDK Workshop Session at AWS IITU Cloud Club
🗣️ "Securing Kubernetes Cluster with Kubescape" – CNCF Almaty 2026 Meetup

🏆 Honors & Awards

🥇 **Winner of Internal DataArt CTF competition** – DataArt, April 2023 · 3rd Place
🥇 **Winner of CyberForensic Village Competition** – TSARKA at KazHackStan Conference, January 2017 · 1st Place
🥇 **Departmental award for achievements in work** – Kazakhstan Government, Nov 2015