NGUYEN QUOC DOAN
Senior DevOps Engineer / Technical Architect

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About me

Senior DevOps Engineer with over 8 years of experience in **building and operating cloud-native systems**, **hybrid infrastructures**, and **high-performance microservices**.
Expert in **AWS**, **Kubernetes**, **Node.js**, and **real-time data synchronization** using **Kafka**, **NiFi**, and **Debezium**.
Specialized in **CI/CD automation**, **observability**, and **zero-downtime deployments** across distributed environments.
Proven track record in **optimizing system performance**, **reducing operational costs**, and maintaining **99.9%+ uptime** for mission-critical applications.

CORE TECHNICAL EXPERTISE

Cloud & DevOps (5+ years)
AWS (EKS, EC2, S3, RDS, MSK, Secrets Manager) • Docker • Kubernetes (EKS, K3s, K0s) • Helm • GitOps • ArgoCD
CI/CD (GitHub Actions, Bitbucket Pipelines, GitLab CI) • Terraform • Ansible • Cost Optimization
Monitoring: Prometheus • Grafana • Alertmanager • Loki • ELK Stack
Backend & Architecture (8+ years)
Node.js • NestJS • Express • TypeScript • Java Spring Boot • Microservices • GraphQL • REST API • Event-driven systems
Data Engineering & Real-time Processing (4+ years)
Apache Kafka • Kafka Connect • Debezium • Apache NiFi • Redis • PostgreSQL • ETL Pipelines • CDC Data Sync
Frontend & Integration (5+ years)
React.js • Next.js • Vue.js • Angular • Micro-frontends • Web Integrations
AI & Emerging Tech (Self-learning & Projects)
AI Agent Integration with **OpenAI**, **Google Gemini**, **LiteLLM**, and **Hugging Face**.

Education

FPT University	Advanced diploma in software engineering	2012 - 2015

- Learning more about Software Engineering Technology (Fast-Track) program emphasizes object-oriented software design methodologies, user-oriented interface design.

LTV CO., LTD – Technical Architect / Senior DevOps Engineer

📅 **Jun 2018 – Oct 2020 (Software Engineer)**
📅 **Mar 2023 – Present (Technical Architect)**
Architected microservices and IoT data systems with **Node.js**, **NestJS**, and **GraphQL**, ensuring 99.9% uptime. Focused on **hybrid cloud-edge infrastructures**, **real-time synchronization**, and **Kubernetes-based automation**.

Hinavi Project (Onsite Korea)

- Designed **hybrid cloud-edge infrastructure** connecting **120+ vessels** with **AWS shore systems** via Starlink.
- Built **real-time data synchronization pipelines** usig **Kafka-connect, Debezium** for continuous CDC between shore and vessel PostgreSQL databases.
- Led **DevOps team** deploying shore environments on **EKS** and vessel systems on **K3s**, enabling autonomous operations at sea.
- **Service Architecture:** Managed and merged microservices using **Istio** service mesh for intelligent routing and fault-tolerance.
- **CI/CD & Code Management:** Synchronized repositories **GitHub → GitLab**, deployed multi-environment pipelines (dev/staging/prod).
- Developed **batch service optimization** reducing CDC processing load and **cutting RDS + Kafka usage by 60%**.
- Deployed **GitOps workflows** with **ArgoCD**, **Helm**, and **Kustomize**, achieving **zero-downtime rollouts**.
- Built a full **Prometheus + Grafana** observability stack and **Slack alerting** for system reliability monitoring.

Tech Stack: AWS (EKS, MSK, RDS, CloudWatch), Kafka, PostgreSQL, Docker, ArgoCD, GitOps, Helm, K3s, NestJS, ReactJS

Oasis Project

- Architected hybrid cloud-edge platform with AWS EKS (shore) and K0s (edge IoT devices)
- Deployed Terraform IaC for hybrid infrastructure: Lambda functions, SNS/SQS event-driven architecture, and Kubernetes clusters
- Built data synchronization pipeline using Apache NiFi + SQS, processing cross-microservice database events and IoT device streams
- Implemented event-driven sync between distributed PostgreSQL databases using SNS/SQS triggers for microservices communication
- Automated CI/CD with GitHub Actions, Helm deployments, and AWS Secrets Manager for secure credential management

Tech Stack: AWS (EKS, Lambda, SNS, SQS, S3, Secrets Manager), Terraform, Apache NiFi, K0s, PostgreSQL, GitHub Actions, Helm, Prometheus, Grafana, NestJS, ReactJS

🏆 **Award:** *Top Individual Excellence of the Year 2024* for outstanding system reliability and architecture leadership.

🤖 Hilios (AI Agent Platform)

- Core developer & DevOps for **AI SaaS chatbot system** supporting 7+ platforms (Zalo, Messenger, WhatsApp, Slack, etc.).
- Built **multi-LLM routing** with **OpenAI, Gemini, and Claude** achieving **99.95% uptime** and **73% latency reduction**.
- Optimized **GCP/GKE costs (-36%)**, container images, and autoscaling strategies for high-load message routing.
- Re-architected system using **Node.js + Bun** for faster execution and improved concurrency.

☕ LTV Coffee (Startup Vietnam Top 15 – 2019)

- Designed and developed **freelancer platform** using **Node.js + Vue.js + MoleculerJS**.

CYFEER – Contract DevOps / Platform Engineer

Thadico – On-Premise K3s Platform

- Built a **production-grade K3s cluster** with multi-master setup, HAProxy load balancing, and Traefik ingress.
- Designed full **observability stack**: Prometheus & Grafana (latency, resource metrics), Loki logging, and ELK for centralized log analysis.
- Automated **PostgreSQL backups to MinIO** with 30-day retention and restore testing.
- Implemented **secure access architecture**: jump server, SSL automation, health checks, and Telegram alerting.
- Supported internal services including PostgreSQL, Redis, and RabbitMQ on bare-metal infrastructure.

Tech Stack:
K3s, HAProxy, Traefik, Prometheus, Grafana, Loki, ELK, MinIO, PostgreSQL, Redis, RabbitMQ

Sun Group – Azure Native Cloud Platform

- Designed and implemented a **full Azure-native Kubernetes platform** using AKS with separated user and system node pools.
- Built **GitOps-based CI/CD pipelines** using GitLab CI, Azure Container Registry, ArgoCD, and Argo Rollouts (blue-green deployments).
- Implemented **secure networking** with Azure VNet, private endpoints, and internal-only access to databases and storage.
- Managed **secrets and certificates** using Azure Key Vault integrated directly into workloads.
- Deployed **centralized observability** with Prometheus, Grafana, and ELK for metrics, logs, and alerting.
- Integrated messaging and async processing using RabbitMQ.
- Provisioned and managed infrastructure using **Terraform** with reproducible environments.

Tech Stack:
Azure AKS, Azure Load Balancer, ACR, Key Vault, PostgreSQL Flexible Server, Cosmos DB (Mongo API), Redis Cache, Blob Storage, ArgoCD, Argo Rollouts, Terraform, Prometheus, Grafana, ELK

Cyhome - AWS EKS Migration

- Migrated a large production system from **Docker Compose to AWS EKS** (9 nodes, 36 vCPU, 256GB RAM).
- Executed **zero-downtime migration** using blue-green deployment and replica promotion.
- Isolated MongoDB, Redis, and RabbitMQ on dedicated nodes to eliminate peak-hour contention.
- Implemented **GitOps with ArgoCD**, Terraform IaC, cluster autoscaling, and HPA.
- Achieved **40% cost optimization** and resolved recurring production outages.

Tech Stack:
AWS EKS, EC2, ALB, CloudWatch, Terraform, ArgoCD, MongoDB, GitHub Actions

BLOOM – Senior Developer / DevOps Engineer

📅 **Oct 2020 – Mar 2023**

Worked in a **hybrid role (50% DevOps / 50% Fullstack)** focused on enterprise SaaS systems and infrastructure automation.

- Designed and deployed **AWS infrastructure** using **Amplify**, **ECS**, and **Lambda**, enabling rapid scaling.
- Developed **Next.js** + **Node.js** microservices for internal management and integration platforms.
- Implemented **Microsoft Entra Verified ID** for secure identity management across distributed microservices.
- Built a **workflow approval hub** (Base.vn-style Request System) integrated with **SAP**, linking DevOps and business teams.
- Automated CI/CD using **Bitbucket Pipelines**, reducing deployment time by 50% and ensuring stable rollouts.

Tech Stack: AWS (Amplify, ECS, Lambda), Azure Entra Verified ID, Node.js, Next.js, SAP, Bitbucket Pipelines

DOU NETWORKS CO., LTD – Software Engineer

📅 **Jan 2015 – Jun 2018**

- Developed internal enterprise platforms using **Node.js**, **Java**, **AngularJS**, and **PostgreSQL**.
- Optimized backend APIs improving performance and scalability.
- Introduced **Docker** and **Jenkins CI/CD** to streamline deployment workflows – first exposure to DevOps practices.

Certificates

Key Achievements

🏆 Award: Top Individual Excellence 2024 (leadership in architecture).

🏆 Award: Top 15 Project Startups in Vietnam, 2019

💰 Cost Savings: 36% GCP reduction (AI platform); 40% AWS savings (resource optimization).

🚀 Performance: 73% latency cut (3s to 800ms); 75% API speedup (800ms to 200ms).

📊 Reliability: 99.95% uptime (1M+ messages/day); 99.9% for 120+ edge devices.

👥 Leadership: Led DevOps teams in hybrid cloud-edge setups.

Languages

English

Intermediate