# Nguyen Duy Dat

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**Personal Goal** I desire to study and enhance my knowledge within a enterprise environment, to learn various new technologies and skills that match the needs of the company and my self-orientation. My aspiration for the future is to become a DevOps Engineer.

### Education

FPT University 2020-2024

Major: Software Engineering

GPA: 2.9/4.0

## Languages

### **English**

Intermediate: Basic communication, reading documents, and listening at a fundamental level.

## Technical Skills

Container Docker, Kubernetes

Cloud, IAC Amazon Web Services, Terraform

**CICD** Jenkins, Gitlab-CI, ArgoCD, AWS Code Pipeline

**Monitorings** Prometheus, Grafana

**Frameworks** .NET Core, ReactJS, NextJS

Others Ubuntu, VMWare, Helm, Shell Script

## **Experiences**

**AI Solutions JSC** Apr 2023 - Aug 2023

Front-End Internship

Project: Online examination system for employees and candidates

- Team size: 5
- **Descriptions:** Participating in the company's quiz project, taking responsibility for building the user interface, handling APIs from the backend, and managing application states. And also, config application to dockerize with docker and integrated with Gitlab-CI.
- Technologies: ReactJS, Srping Boot, Redis, PostgreSQL, Docker, Gitlab-CI.

VTI Group May 2024 - Oct 2024

DevOps Internship

Project: Open-Central

- Customers: from Japan
- Team size: 6
- Descriptions: Participated in implementing a CI/CD pipeline on AWS environment, setting up infrastructure using IaC (Terraform), and creating documentation for customer acceptance.
- Technologies: AWS (ECS, Step Functions, S3, Code Pipeline, CodeBuild, CodeDeploy, CodeCommit, RDS), Gitlab, Terraform, Docker.

Project: SPPL

- Customers: Singapore Pool, Asiapac
- Team size: 5 - Descriptions:
  - The project was implemented using a landing zone architecture with multiple accounts: one shared account to distribute resources to other accounts, one network account containing subnets and a transit gateway, one inspection account serving as a firewall for controlling traffic to and from OpenShift clusters both within and outside the internet, and a final account containing the ROSA Cluster.

- Remotely accessed the customer's server to deploy the CI/CD pipeline using GitLab-CI for Applications and Infrastructure, participated in integrating the DevSecOps process into the CI/CD pipeline such as: scan images, repository, artifacts, and also load testing. And also
- Participated to integrated CICD and GitOps pipeline on Customer's server with ArgoCD, Kustomize microservice application.
- Deployed Dynatrace and Aqua Security on the ROSA cluster, while also using Terraform to provision the infrastructure and configurations for ROSA cluster.
- Participated in meetings with team colleagues and clients to demo and resolve issues during the development process as needed.
- Create private hosted zone for all account to resolve DNS between Cloud infrastructure with customer's on-premise data center.
- Technologies: ROSA (Redhat OpenShift Service on AWS), Dynatrace, Aqua Security, AWS (Route53, Site-to-Site VPN, Cert Manager, KMS, ECR, VPC, Transit Gateway, Direct Connect,...), Fortinet, Podman, ArgoCD, Terraform, GitLab-CI, Fortify (SAST), NeoLoad (Load test), Helm, Kustomize, AzureAD.

## **Personal Projects**

## **CI-CD Pipeline & Monitoring for Spring Boot Application**

- Link demo: https://www.youtube.com/watch?v=5umIJX7PEyY
- Description: Establishing infrastructure for the Spring Boot project using MySQL and Redis (on-premise). The
  infrastructure consists of three separate Ubuntu servers and integrates CI/CD using GitLab-CI with a local and private
  GitLab registry, then integrated Monitoring's agent to scrape the metric logs of infrastructure.
- Technologies:

Frameworks: Java (Spring Boot)

Database: MySQL, Redis

CICD: GitLab-CI

Monitoring: Node-Exporter, Prometheus, Grafana, ELK Stack

Container Platform: Docker Others: Nginx, VMWare, Ubuntu

### **CI-CD For ASP.NET CORE Application Using Jenkins**

Link demo: https://youtu.be/Ndw8CcNwMq8?si=o9gBZFeyQEZfz0MI

Description: Establishing infrastructure for the ASP.NET Core project using ReactJS and SQL Server. The infrastructure consists of three separate Ubuntu servers and integrates CI/CD using GitLab-CI with a local and private registry. In the production stage using Jenkins with Groovy script for automation deploy. Docker images will be stored in Harbor Registry that is located in the EC2 instance.

- Technologies:

Frameworks: ASP.NET Core 8, ReactJS

Database: SQL Server CICD: Jenkins, GitLab-CI Container Platform: Docker

Others: AWS EC2, Nginx, VMWare, Ubuntu, Bash script, Groovy script

## **Deploy Microservice Application On AWS**

Link demo: https://youtu.be/1-hKtN0RKec

Description: Building infrastructure for Microservice application using AWS VPC with Terraform for managing infrastructure using remote backend (Terraform Cloud). Using EC2 instance for all backend services, then integrated with Application Load Balancer and Auto Scaling Group. Users will access the client through Front-End application hosting on AWS S3 integrated with Route53 DNS.

- Technologies:

Frameworks: ReactJS, NodeJS

Database: MongoDB

Cloud: AWS (VPC, Elastic Load Balancing, S3, Route53, CloudWatch, Auto Scaling Group, IAM, EC2)

IAC: Terraform

### Deploy FullStack Application on Bare Metal Kubernetes Cluster

- Link demo: https://youtu.be/vzmf $_aMvpYE$ ?si = T0XhzYn37S7138qH

Description: Set up and configure Kubernetes cluster locally with VMware running on Ubuntu Server, then set up NFS server for dynamic provisioning persistent volumes. Metal LB is used as a Load Balancer and Nginx Ingress Controller. The application can be accessed by DNS of Ingress. Monitoring was set up with Prometheus, Grafana, and alert rules configured to send alerts to Gmail. The application is also packed with Helm chart to deploy on another cluster.

## - Technologies:

Frameworks: .NET Core API 8, ReactJS

CICD: Jenkins, ArgoCD Database: SQL Server

IAC: Terraform

Container Platform: Docker, Kubernetes

Monitoring: Node Exporter, Prometheus, Grafana, Alert Manager

Others: Metal LB, Nginx Ingress Controller, Cert Manager, NFS Storage Class, Helm, Bitnami Sealed Secret, Hashicorp

Vault