Pham Tan Tai

DevOps Intern

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KTX Khu A - ĐHQG TP.HCM

CAREER OBJECTIVE

As an IT student oriented towards DevOps, I hope to have the opportunity to intern in a real environment to learn and improve my skills in Linux, CI/CD, containerization, and system deployment. From there, I will develop into a professional DevOps Engineer.

EDUCATION

University of Information Technology - VNUHCM 2022 - 2026

Major: Computer Networks and Data Communications

- GPA: 3.0
- 4th year student

PROJECT

DevOps for IoT Reconfiguration 17/2/2025 - 7/6/2025

Number of members: 1

Project Description:

- Design and implement a DevOps system for a three-tier IoT model, including the device tier (ESP32, Raspberry Pi), the edge tier, and the cloud tier, to automate the software build, update, and monitoring process.
- Use GitHub Actions for CI/CD pipeline, integrate OTA update of ESP32 firmware, and containerize applications for Raspberry Pi.
- The system is deployed on K3s cluster infrastructure using OpenStack, automatically managed via Ansible.
- Integrate Prometheus, Grafana, Loki, and EMQX to monitor performance, collect logs, and transmit information in real time between tiers.
- Ensure scalability, security, and comprehensive monitoring in a distributed environment.

Technologies and tools used: Docker, Git, GitHub Actions, Ansible, K3s, Prometheus, Grafana, Loki, Node.js, FastAPI, React, MQTT (EMQX), Slack Webhook, ESP32, Raspberry Pi (Docker emulator), HTTP OTA.

Deploying virtualized infrastructure and streaming services with OpenNebula 7/3/2025 - 26/5/2025

Number of members: 4

Personal role:

- Deploy and configure OpenNebula infrastructure (1 Front-end + 4 Hypervisor nodes)
- Participate in deploying Streaming services

Project description:

- Deploy virtualization infrastructure using OpenNebula to build and test an internal livestream system operating on a private network environment. The system includes virtual machines running Ubuntu, set up with bridged networking and automatically configured using Ansible.
- The livestream application uses RTMP protocol with an architecture of 1 Ingest Node and 2 Edge Nodes, helping to optimize media stream distribution.
- The project focuses on evaluating the ability to distribute resources, high availability, and simulate multi-point communication model in the organization's internal system.

Technology and tools used: VMware Workstation (Nested Virtualization), KVM, OpenNebula, Ansible, Ubuntu Server 22.04, bridged networking, Nginx RTMP, RTMP Protocol.

SKILL

DevOps tools, Automation	Ansible, Docker, K3s, GitHub Actions, Bash scripting, Prometheus, Grafana, Lokistack, EMQX.
Linux	Ubuntu Server, Bash scripting, systemd, Netplan, user & permission management, SSH key-based auth.
Virtualization, Cloud Platforms	KVM, OpenNebula, VMware Workstation, cloud-init, bridged networking, static IP setup.

CERTIFICATE

Toeic Certificate: 470

INTEREST

Sports, listening to music, reading books.