

# Tran Vu Khanh Hung

Ho Chi Minh City, Vietnam

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## Education

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### International University - VNU HCMC

Bachelor of Engineering in Computer Science

GPA: 3.65/4.0 (87.7/100)

Relevant Courses: Linux System Administration, Cloud Computing, Software Engineering, Networking, Database Management.

Activities: Badminton, Volleyball.

Ho Chi Minh City, Vietnam

Oct 2021 - Oct 2025 (Expected)

## Experience

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### Undergraduate Research Fellow

July 2024 – Present

AIoT Lab VN, International University

- Build web applications with educational and environmental purposes.
- Develop mobile apps that address educational or environmental goals.
- Apply AI techniques to create intelligent and adaptive applications.
- Built and automated CI/CD pipelines using **Jenkins** and **GitHub Actions**.
- Managed and deployed applications using **Docker** and **Kubernetes**.

### Software Engineer Intern

November 2024 – February 2025

Vietnam Institute of Digital Economy Development

- Designed and developed scalable backend systems to support digital transformation initiatives.
- Worked with REST APIs and cloud-based solutions to enhance system efficiency.
- Applied Blockchain Hyperledger Fabric for Transparent Traceability System.
- Implemented CI/CD pipelines using **Jenkins** and **GitHub Actions** to automate deployment and improve development workflows.
- Deployed and managed applications using **Docker**, **Kubernetes**, and **cloud platforms** to ensure scalability and reliability.
- Built a user-friendly web interface that aligns with the system.
- Collaborated with cross-functional teams to optimize application performance and infrastructure efficiency.

### Technical Researcher

September 2024 – November 2024

Vietnam Institute of Digital Economy Development

- Conducted research on Blockchain technologies - Hyperledger Fabric to support software development.
- Analyzed technology trends for blockchain and proposed innovative solutions for digital economy growth.

## Projects

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### NexMind - AI-powered Self-Monitoring System

An AI-driven mental health self-monitoring platform integrating wearable technology and predictive analytics to enhance personalized healthcare. The system collects health data from **Huawei Watch GT3**, applies **LSTM** for sleep quality prediction, and provides real-time insights through a web dashboard for doctors and a mobile app for patients.

- Developed backend services with **FastAPI**, **PostgreSQL**, and **JWT** for secure authentication and data processing.
- Implemented a **CI/CD pipeline** using Jenkins and GitHub Actions for automated testing and deployment.
- Containerized services with **Docker** and orchestrated deployments using **Kubernetes** for scalability.
- Integrated **Redis** for caching and optimized system performance.
- Applied AI models (**LSTM**) to analyze time-series health data and predict sleep quality.
- Ensured compliance with **HIPAA** and **GDPR** standards for secure data transmission and storage.

### Kepler - Task Tracking Management Website

<https://dotkepler.vercel.app/>

Kepler is a task-tracking management website designed to help teams organize, assign, and track tasks efficiently.

- Built with **Express.js**, **TypeScript**, **MySQL**, and **JWT** for secure authentication.
- Designed and implemented a **CI/CD pipeline** using GitHub Actions.
- Containerized backend services with **Docker** and orchestrated with **Kubernetes**.
- Integrated **Redis** for caching and performance optimization.

### ATMOS - AIoT Air Quality Monitoring System

<https://atmos.aiotlab.io.vn/>

- Designed intuitive visualizations to display air quality trends and patterns.
- Developed and optimized backend services to handle real-time air quality data processing and storage.
- Created APIs to enable seamless interaction between the frontend, backend, and AI models (**LSTM**, **Prophet**).
- Implemented **CI/CD pipelines** for automated deployment and continuous integration of backend and AI components.
- Deployed and managed infrastructure using **Docker** and **Kubernetes** to ensure scalability and reliability.
- Applied machine learning models to train data for accurate air quality predictions.

### Solant - A social platform Web3/dApps, optimizing study and work time

<https://solant.vercel.app/>

June 2024 – July 2024

Associated with International University - VNU HCMC

- Designing and developing the interface and functionalities of the product.
- Implementing real-time interactions with the Blockchain infrastructure from **Solana**.
- Designing backend architecture and implementing **CI/CD pipeline** for seamless delivery.

**Skills:** Blockchain, Solana, Decentralized Applications (DApps), Web3, Jenkins.

## Skills

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**DevOps Tools:** Jenkins, GitHub Actions, Terraform, Docker, Kubernetes

**Infrastructure & Automation:** Linux, Bash Scripting, System Administration

**Monitoring & Logging:** Prometheus, Grafana

**Cloud Platforms:** AWS (EC2, S3, Lambda), Google Cloud

**Programming Languages:** Python, Golang, Bash

**Version Control:** Git, GitHub, GitLab

**Database:** MySQL, PostgreSQL, MongoDB, Redis

**Soft Skills:** Team Collaboration, Documentation, Research Skills

**Languages:** Vietnamese (Native), English (IELTS 6.0)

## Honors & Awards

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Encourage Study Scholarship

International University - VNU HCMC

Bronze Medal - 12th Design, Creation, and Application Awards 2024 with Atmos project - <https://atmos.aiotlab.io.vn/>

First Prize - IT Hackathon 2024: Solana Consumer Hack 16 with Solant Project - <https://solant.vercel.app/>

## Extra-Curricular Activities

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IT Youth Union of International University

Member of the Spring Volunteer Campaign

Ho Chi Minh City

Nov 2023

- Organized events with local students and contributed to primary school activities.
- Planning for activities and operations.