Phuong Tan Thanh

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Professional Summary

Backend developer specializing in Python and FastAPI, with working knowledge of Next.js frontend development and DevOps practices. Experience in designing and implementing microservices architectures, containerization with Docker, and CI/CD pipelines. Demonstrated ability to quickly master new technologies and deliver high-quality solutions in fast-paced environments.

Experience

Backend Developer, Oryza System JSC – Ho Chi Minh City, Vietnam   Apr 2024 – Mar 2025

- Led a 2-person development team for Oryza-AI, a web-based platform for camera management and AI integration
- Built and architected the entire backend system from scratch using Python, FastAPI, and microservices architecture
- Maintained and supported the Next.js frontend application after transition from team member
- Engineered a scalable MongoDB database schema for efficient management of camera configurations, AI results, and system logs
- Implemented RabbitMQ for asynchronous task management, enabling reliable communication between microservices
- Enhanced system security through Keycloak integration, data encryption, and comprehensive API authentication
- Optimized system performance through efficient database queries and strategic caching implementation
- Containerized services with Docker and established CI/CD pipelines for streamlined deployment
- Designed and implemented APIs for seamless integration of microservice-based AI solutions
- Maintained comprehensive documentation and conducted regular code reviews to ensure code quality

Data Scientist, AIVISION – Ho Chi Minh City, Vietnam   Jun 2023 – Mar 2024

- Designed and deployed an e-commerce chatbot using Langchain and OpenAI API, implementing RAG architecture to enhance customer interactions
- Developed backend for a computer vision application, managing high-volume requests and implementing efficient data storage
- Utilized AWS services (DynamoDB, Lambda, API Gateway) to build scalable backend systems
- Developed CI/CD pipeline for deploying a restaurant website backend
- Applied Scrum/Agile methodologies, participating in daily scrums and sprint retrospectives
- Developed Python backends using FastAPI, adhering to RESTful API principles

Education

Ho Chi Minh City University of Technology, B.S. in Mechatronics   Aug 2018 – Jun 2023

- Graduation thesis: Analysis and design of an Intelligent Chinese chess robot
- Analyzed mechanical and electrical structure of the chess robot, built driving principle and control algorithm
- Developed chess piece recognition algorithm using computer vision and convolutional neural network, achieving 99.8
- Analyzed and developed chess playing engine

Hung Vuong Highschool for the Gifted, Major: Math   Aug 2014 – May 2017

- Participated in the Vietnam National Informatics Olympiad
- Earned second place in the provincial informatics competition for high school students of Gia Lai province (2015 & 2016)

Volunteering

Team Leader, BKFC Toi Yeu Bach Khoa - THPT Chuyen Hung Vuong Gia Lai   Nov 2018 – Aug 2019
- Led a team of 20 members to organize an Admission Counseling program, attracting over 200 students
- Measured and documented social media performance to enhance media campaigns
- Created monthly reports evaluating team members' performance and program results across two seasons

Technologies

Backend Development: Python (FastAPI, Django basics), RESTful API Design, Java (Spring Boot basics)

Databases: PostgreSQL, MongoDB, DynamoDB

DevOps & Cloud: Docker, AWS (EC2, S3, Lambda), Google Cloud Platform, Message Queuing (RabbitMQ)

Tools & Practices: Git, CI/CD (GitLab CI), Microservices Architecture, Agile/Scrum

Data Processing & Analytics: PowerBI

Frontend: Next.js, React, HTML, CSS, JavaScript

Other: Linux, Bash scripting, Nginx, Unit Testing (pytest)

Certifications & Honors

Back Khoa Mentoring Season 6 (Vietnam Alumni Mentoring)   Nov 2021 – Aug 2022
- Certificate of Completion
- Certificate of Achievement: Top 5 Most Active Mentees

Online Certifications   Feb 2023 – Jul 2022
- Coursera: Convolutional Neural Networks (Feb 2023)
- Coursera: Machine Learning Specialization (Jan 2023)
- Coursera: Google Cloud Big Data and Machine Learning Fundamentals (Aug 2022)
- Coursera: Neural Networks and Deep Learning (Oct 2022)
- Datacamp: Data Analyst in SQL Track (Aug 2022)
- Datacamp: Power BI Fundamentals Track (Jul 2022)
- Datacamp: SQL Fundamentals Track (Jul 2022)
- Datacamp: Intermediate Python (Dec 2021)
- Hackerrank: SQL (Basic) Certificate (Jul 2022)
- Hackerrank: Java (Basic) Certificate (Jul 2022)

Languages

English: Fluent (Professional working proficiency)   **French:** Basic (Elementary proficiency)