

Van Ngoc Nhat Huy

Backend Developer

Email: work.nhathuyd4hp@gmail.com

GitHub: github.com/nhathuyd4hp

Phone: (+84) 86-761-7246

EDUCATION

University of Information Technology (VNU-HCM)

TECHNICAL SKILLS

Languages: Python, Dart, JavaScript/TypeScript

Frameworks: FastAPI, NestJS, Flutter

Databases: PostgreSQL, MongoDB, MySQL, Redis

Platform & Tools: Docker, Docker Swarm, Cloudflare, Linux, Azure DevOps

Concepts: Web APIs, Event-Driven Architecture, Distributed Task Queues, Real-time Messaging (WebSockets, Pub/Sub), Auth (JWT, RBAC), Browser Automation, CI/CD, AI-assisted Development

WORK EXPERIENCE

ASTR Ltd

Python Developer | Python, FastAPI, Celery, Redis, PostgreSQL

03/2025 – Present

• Internal RPA Platform:

- Designed the distributed orchestration backend using **FastAPI**, **Celery** and **Redis** to schedule, dispatch and monitor workflows
- Implemented **Webhook** endpoints to receive external triggers for workflow execution
- Implemented real-time bidirectional communication via **WebSockets** and **Redis Pub/Sub** for live log streaming, execution events and interactive decision prompts between workers and clients
- Built a scheduling and job persistence system using **APScheduler** backed by **MySQL**, with **MinIO** object storage for automated result file management and lifecycle expiration policies
- Developed workflow modules using **Playwright**, **Selenium** and **Google Apps Script** for data collection, form submission, document distribution and reporting, and reverse-engineered the platforms' APIs to call them directly via Playwright's **APIRequestContext**

• Internal Document Management Platform:

- Built the backend of an internal platform that centralizes company documents across **SharePoint**, **Google Drive** and **S3/MinIO** using **FastAPI** and **PostgreSQL**: browsing, search, uploads and copy/move between storage sources
- Designed a storage provider abstraction over **Microsoft Graph**, **Google Drive API** and **boto3**, so every feature shares one code path regardless of where a file lives
- Integrated **ONLYOFFICE Docs** for in-browser Word/Excel/PowerPoint editing saved back to the source, with **ETag-based** conflict detection and live file-change alerts over **WebSockets**
- Implemented role-based access with **JWT** sessions, rotating refresh tokens and encrypted storage credentials

Oryza Systems

Backend Developer Intern | FastAPI, Docker, Grafana

10/2024 – 03/2025

• Oryza AI Backend – Oryza AI Service:

- Developed RESTful APIs for camera data and system configurations using **FastAPI**
- Established centralized observability using **Grafana**, **Loki** and **Promtail**
- Containerized applications using **Docker** and managed Staging deployments

KEY PROJECTS

HHMS – Hotel Agency Website | NestJS

one.hitohikari.net

- Architected a hotel management backend to streamline housekeeping task delegation, automate dynamic payroll calculations and enforce secure staff attendance tracking via facial recognition verification APIs

Hang Duong Cemetery Website | NestJS

nghiatranghangduong.tphcm.gov.vn

- Engineered a public archival and mapping backend handling large-scale historical records, digital grave mapping database design and optimized geospatial routing APIs for visitors

Business Management System | FastAPI

GitHub

- Built a secure administration core with granular **Role-Based Access Control (RBAC)** to isolate multi-tier permissions (e.g. Cashier constraints)
- Engineered a real-time order pipeline using **WebSockets** for instant multi-terminal broadcasting and sales alerts
- Developed high-performance aggregation APIs for multi-branch inventory synchronization and financial reporting
- Stack: Python, FastAPI, WebSockets, PostgreSQL, Docker