

# NGUYEN THANH DAT

## Java Backend Developer (Fresher)

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### OBJECTIVE

Fresher Java Backend Developer with hands-on experience in building REST APIs, secure authentication systems, and scalable backend services using Java and Spring Boot. Seeking an opportunity to contribute to real-world products, strengthen my skills in databases, system design, and distributed systems, and grow into a professional Backend Developer.

### EDUCATION

FPT University 2022 - 2026

Software Engineer

GPA : 3.2/4.0 - (Expected graduation - 2026)

LANGUAGE

ENGLISH : Basic Working Proficiency (TOEIC 550)

JAPAN : Basic Proficiency (JLPT N5)

### WORK EXPERIENCE

FPT SOFTWARE 08/2025 - 12/2025

Backend Developer Intern

Laboratory Information System (LIS) - Team size: 5 - Duration: 3 months

- Developed a **microservices-based Laboratory Information System** with **9 services** for core laboratory workflows.
- Built an **API Gateway** with **JWT authentication**, request filtering, and service discovery via **Eureka** to centralize routing and secure service access.
- Designed an **event-driven architecture** using **Apache Kafka** and implemented an **HL7 v2.5.1 pipeline** for laboratory result processing.
- Integrated third-party services such as **VNPT eKYC** and **Cloudinary**, and applied **polyglot persistence** for different service requirements.
- Containerized the system with **Docker Compose**, supported deployment automation with **GitHub Actions**, and implemented observability with **Prometheus** and **Grafana**.

### TECHNICAL SKILLS

|                         |                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------|
| Languages               | Java, SQL                                                                             |
| Backend                 | Spring Boot, Spring Security, Spring Data JPA, Hibernate, RESTful APIs, Microservices |
| Databases & Caching     | PostgreSQL, Redis , MySQL                                                             |
| Messaging & Integration | Apache Kafka , OpenFeign                                                              |
| DevOps & Tools          | Docker, Docker Compose, GitHub Actions, Nginx , Dokploy                               |
| Testing & Monitoring    | JUnit 5, Mockito, Prometheus, Grafana , Zipkin                                        |
| Others                  | Git, GitHub, Postman, Maven, Swagger/OpenAPI, IntelliJ IDEA                           |

SmartMart — AI-Powered Retail Management System

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Full-Stack Developer

**Tech Stack:** Java 21, Spring Boot 3, Spring Security, JWT, PostgreSQL, Redis, Kafka, Flyway, Python, FastAPI, XGBoost, Gemini API, React, TypeScript, Docker

- Built a full-stack **retail management system** (POS, inventory, purchasing, finance) with **role-based access control** for 4 user roles.
- Developed a **demand forecasting service** (Python/FastAPI, Random Forest + XGBoost, per-SKU, 18 features) achieving **~27% lower MAPE** than baseline, using recursive multi-step prediction for 7/14/30-day horizons.
- Integrated **Gemini AI** as a **tool-calling assistant** for natural-language queries, plus an AI-driven promotion recommendation engine combining sales forecasts with stock-risk detection.
- Engineered a **promotion engine** with 6 discount types (% , fixed-amount, BOGO, bundles, flash sale, coupons), priority-based conflict resolution, and usage-limit tracking.
- Used **Redis, Kafka, Flyway** for caching, async events, and schema migrations across 50+ releases.
- **Containerized** the full stack (backend, AI service, frontend, DB) with **Docker Compose**.

GitHub: <https://github.com/datnguyencoder/smartAI>

Drug Use Prevention Support System

12/05/2025 - 18/07/2025

Back-End Developer

**Tech Stack:** Java 21, Spring Boot 3.5, Spring Security, JWT, OAuth2, Spring Data JPA, MySQL 8, Spring AI, React 19, MUI 7, Docker, GCP, Vercel

- Developed a **support system for drug use prevention**, including **Public Website, Admin Portal, and Backend API**, to support education, counseling, and community awareness for a non-profit organization.
- Built secure backend APIs with **Java 21, Spring Boot, Spring Security, JWT, OAuth2, Spring Data JPA, and MySQL**, implementing **role-based access control for 6 user roles**.
- Developed key business modules such as **course and quiz management, 1:1 consultation booking with video call, ASSIST/CRAFFT screening surveys, AI chatbot, and content approval workflow**.
- Integrated external services including **Google OAuth2 Login, VideoSDK.live, Cloudinary, and Gemini via Spring AI** to enhance user experience and system capabilities.
- Supported deployment using **Docker multi-stage build, GCP Compute Engine, and Vercel CDN** for scalable delivery.

GitHub : <https://github.com/datnguyencoder/DUPSS-SWP391>