



# Tran Dang Bao Phuc

Backend Developer

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## OBJECTIVE

A third-year Software Engineering student with strong logical thinking and a focus on Backend Engineering. Experienced in designing and developing RESTful APIs using Java and Spring Boot. Deeply committed to implementing 3-Layer Architecture, Design Patterns, and Clean Code principles to ensure high maintainability and scalability. Proficient in collaborating within Agile/Scrum workflows and skilled at leveraging AI tools to optimize coding efficiency, troubleshoot issues, and research emerging technologies. Seeking a Backend Internship to apply my knowledge of systems and databases to real-world business projects.

## EDUCATION

2023 - 2028

*Vietnam-Korea University of Information and Communication Technology (VKU)*

### Software Engineering

- Data Structures & Algorithms, Java Backend Development, Database Management (SQL/NoSQL), Operating Systems (Linux).
- GPA: 3.11/4.0

## PERSONAL PROJECTS

Dec 2025 - Present

### Real Estate Management System (Backend API)

#### Personal Project | Backend Developer

Built a robust RESTful API for managing building and real estate information, focusing on Clean Architecture and professional coding standards.

**Team size:** 1 (Independent Project).

**Tech Stack:** Java, Spring Boot, MySQL, Native JDBC, Reflection API, Builder Pattern, Spring Data JPA (In-progress).

#### Key Highlights

- **API Architecture & Design Patterns:** Engineered a standard **RESTful API** using **3-Layer Architecture** (Controller, Service, Repository). Applied **Builder Pattern** for complex Search Filters and DTOs to ensure object immutability and cleaner code structure.
- **Deep Data Access Mastery:** Mastered **Native JDBC** and **Dynamic SQL** to handle multi-parameter building searches. Gained hands-on experience with **Database Connection Pooling** and manual **ResultSet mapping** to understand the core mechanics before transitioning to ORM.
- **Advanced Automation:** Leveraged **Java Reflection API** to build a dynamic query builder, successfully automating SQL generation and reducing boilerplate code in the Data Access layer by **40%**.
- **Security & Error Management:** Implemented **DTO Pattern** to prevent internal entity exposure and established a **Global Exception Handling** mechanism (using `@ControllerAdvice`) to return standardized, user-friendly API responses.
- **Development Efficiency:** Optimized the workflow using **Postman** for API testing and effectively integrated **AI tools** (Google Antigravity, OpenCode, Claude) to accelerate debugging, logic troubleshooting, and documentation.
- **Modernization Roadmap:** Currently researching and migrating core modules to **Spring Data JPA** and **Hibernate** to optimize entity relationships and data persistence management.

Apr 2025 - Dec 2025

## Movie Ticket Booking System Personal Project | Fullstack Developer

Developed a comprehensive full-stack solution for cinema management and ticket booking, consisting of a Mobile App for users, a Web Dashboard for admins, and a centralized RESTful API.

**Team size:** 1 (Independent Project)

**Tech Stack:** React Native (Expo), Next.js, Node.js, Express, MongoDB, JWT, Material UI.

### Key Highlights:

- **Full-stack Architecture:** Orchestrated a **Monorepo** structure to manage three interconnected services, ensuring seamless data flow and consistent API integration using **Axios**.
- **Mobile Experience:** Engineered a cross-platform mobile application with **React Native** and **Expo**, featuring real-time seat selection, movie trailers integration, and booking history management.
- **Admin Analytics & Management:** Built a web-based dashboard using **Next.js** and **Chart.js** to visualize revenue statistics and manage cinema resources (movies, showtimes, and room availability).
- **Secure Authentication:** Implemented a robust security layer using **JWT (JSON Web Tokens)** and **Bcryptjs** for password hashing, supporting role-based access control (User/Admin).
- **Automated Services:** Integrated **Nodemailer** for automated booking confirmations and **PDFKit** for generating electronic tickets with unique **QR Codes**.
- **Background Processing:** Leveraged **Node-cron** to handle automated background jobs, such as cleaning up expired or unpaid seat reservations to optimize database performance.

## ACTIVITIES

Oct 2023 - Present

### VKU Technology Seminars

#### Participant

Attended various workshops and technical seminars hosted by VKU and industry partners, covering topics such as AI, Blockchain, Cloud Computing, and Cybersecurity.

Actively engaged in researching modern technology applications to optimize software development processes and academic performance.

Mar 2025 - May 2025

### FPT Software Field Trip & Seminar

#### Participant

Visited FPT Software Da Nang to explore professional environments and the Software Development Life Cycle (SDLC).

Gained insights into Agile/Scrum workflows and industry recruitment standards.

## SKILLS

Backend	Java (Core, Java 21), Spring Boot, RESTful API, 3-Layer Architecture.
Database	MySQL, MongoDB.
Tools & Others	Git, Agile/Scrum (Jira), Postman, Clean Code, AI-assisted development (Google Antigravity, OpenCode, Claude).
Soft Skills	Problem-solving, Team collaboration, Technical Research, Self-learning.
Language Skills	English: Technical Reading (Capable of researching and understanding documentation with AI & translation tools support), Vietnamese: Native.

## INTERESTS

Tech Research, E-sports, Gym & Fitness, Cinema.