

Bui Hai Duc

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OBJECTIVE

Third-year IT student at University of Transport and Communications seeking a DevOps/Backend internship. Passionate about building scalable infrastructure, CI/CD pipelines, and cloud-native applications. Eager to contribute to production systems while learning from experienced engineers.

PROJECTS

Full project, source links and myself available at duckcy.me

SBLT CUP - Tournament Management Platform

05-2026

Role: Personal Project

- **Context:** Built for SBLT (Song Bang Long Tin) YouTube team's TFT tournament held in May 2026.
- **Tech Stack:** Next.js 16, TypeScript, Prisma 7, PostgreSQL, Redis, NextAuth v5, Tailwind, SSE, Web Push
- Designed multi-stage tournament system (5 types, 8 groups × 8 players) with automated advancement and prediction system featuring time-window control and auto-scoring.
- Implemented real-time updates via SSE + Redis Pub/Sub (5000+ concurrent connections) with cross-instance broadcasting for PM2 cluster.
- Built 3-channel notification system (Database, Email, Push) with batch processing solving N+1 queries, and optimized caching with Redis stampede protection.
- Developed composite player rating algorithm (0-1000 score) based on 4 weighted factors.
- Set up CI/CD pipeline with GitHub Actions, health check endpoints, and automated PM2 deployment.
- Integrated OAuth2 (Google) + Credentials authentication, role-based access control, session invalidation, and audit logging.
- **Project Link:** github.com/Duck-SFIT-CNTT2-K64/SBLT_CUP

Classes369

02/2026 – 05/2026

Role: DevOps and Backend

- **Tech Stack:** Flask, SQL Server, Docker, Python, GenAI
- **Backend Achievement:** Delivered a modular, production-oriented API with robust DB transaction handling and integrated AI assistant for contextual student queries.
- Designed Flask backend using Blueprints (11+ modules) and built authentication flow supporting bcrypt, role-based access, and API endpoints.
- Implemented core business logic: transactional enrollment, cascading deletes, and payments handling.
- **DevOps Achievement:** Automated reproducible local/dev environment with reliable DB initialization and minimal manual steps.
- Maintained Docker-based deployment (app + SQL Server + db-init) with automated schema seeding, persistent volumes, and healthchecks.
- Hardened start-up flow to avoid race conditions (wait-for-sql, state checks) and retry/backoff mechanisms.
- **Project Link:** github.com/Duck-SFIT-CNTT2-K64/api_web_student_manager

Investor AI

01/2025 – 06/2025

Role: DevOps

- **Tech Stack:** Spring Boot, React, Airflow, Docker, Spark, PostgreSQL, Redis, MinIO, CUDA
- **Achievement:** Architected scalable containerized deployment for 12 services, enabling daily processing of financial data via 13 Airflow DAGs.
- Created and maintained Docker images and docker-compose configurations for consistent environments.
- Built automated CI/CD pipelines (build → test → deploy) with rollback support for backend and frontend.
- Prepared GPU- and Spark-enabled containers for reproducible LSTM model training and inference with CUDA tuning.
- Implemented centralized logging, alerting, and SLOs to monitor system reliability and reduce MTTR.
- Managed PostgreSQL backups, MinIO object storage, secrets handling, and enforced security PR checks.
- **Project Link:** github.com/ltdungg/Investor-AI-Website

TECHNICAL SKILLS

Languages: Python, C++, TypeScript

Backend: Spring Boot, Flask

Frontend: React

DevOps & Infrastructure: Docker, Docker Compose, Linux, GitHub Actions, CI/CD

Databases & Storage: PostgreSQL, SQL Server, Redis

Concepts & Domains: CI/CD Pipelines, Git/GitHub

EDUCATION

University of Transport and Communications

Hanoi, Vietnam

Bachelor 4-year of Information Technology — GPA: 3.38 / 4.0

2023 – 2027

AWARDS & ACTIVITIES

Technical Lead & Mentor

2024 – Present

SFIT Club – Technical & Cloud Committee

Hanoi, Vietnam

- Planned and coordinated technical workshops on DevOps and cloud technologies for club members.
- Mentored junior members in programming fundamentals and project-based learning.
- Organized coding events and promoted hands-on infrastructure and deployment practices.

SOFT SKILLS & INTERESTS

Soft Skills: Team Leadership, Mentoring, Problem Solving, Communication

Interests: Cloud Infrastructure, Open Source, Photography, Cooking