

Hao Nguyen The

Backend Developer

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PROFILE

Mid-level Backend Developer with 2.5+ years building scalable systems across e-commerce, fintech, and government sectors. Strong in NestJS, PostgreSQL, Redis, and microservices architecture. Experienced with async pipelines, eKYC workflows, and automated data crawling. Targeting Mid-level roles in Vietnamese and international markets.

EXPERIENCE

Backend Developer — Trident Digital Tech

Jul 2025 – Present · Ho Chi Minh City

RDC — Citizen Management Platform (Congo, 100M+ population)

- National-scale system needed a resilient backend; **architected NestJS microservices** separating core APIs, async eKYC workers, and cron jobs — designed for 100M+ citizens.
- Large citizen datasets caused DB bottlenecks; applied **Redis + Bloom Filter** caching and **BullMQ** async queues, cutting DB load and decoupling OCR/face recognition from the API cycle.
- Identity verification required a secure, auditable flow; built **eKYC workflow** with Tencent Cloud OCR & Face Recognition, JWT auth, RBAC, and AES encryption.
- Records needed flexible search; configured **Elasticsearch** full-text search and designed PostgreSQL schemas with migrations and full audit trail.

Trifood — Food Delivery Platform

- APIs needed to be reliable and well-tested; built order, product & payment endpoints (NestJS) with **BullMQ + Redis** pipeline, achieving **70%+ test coverage** via Jest.
- Product search was slow on large catalogs; indexed data in **Elasticsearch** to power fast full-text queries across the product catalog.

Software Developer — Tego Global

Dec 2023 – Jun 2025 · Ho Chi Minh City

Pfs — Automated Insurance Data Crawling

- Manual collection took ~5 min/record, unscalable for thousands of entries; built **Scrapy + Selenium** crawlers reducing time to **<30s/record (10x+ faster)**; API sources completed in <3s.
- Single-source crawling couldn't meet data volume needs; scaled pipeline to **tens of thousands of records/day** across 10 insurance websites (flight, home, pet).
- Needed production infra; built NestJS microservice with **AWS S3, Cognito, RDS** and managed ORM via TypeORM & SQLAlchemy.

Perkify — CRM & Loyalty System

- CRM lacked a rewards engine; built **loyalty point & redemption** features for multi-tenant CRM, optimizing MongoDB aggregation queries for faster reporting.
- Multiple user roles required separate interfaces; developed REST APIs for admin, staff & customers, plus email subscription endpoints for marketing campaigns.

Blog & Autosend News — Internal Platform

- ~2 hrs/day lost to manual content curation; built **automated Slack integration** via cron jobs delivering tech news & crypto updates, **saving ~2 hrs/day**.
- Platform lacked real-time features; implemented WebSocket notifications, tree comments, content recommendations (Embeddings), Redis caching — deployed on NestJS + Prisma + PostgreSQL.

SKILLS

Backend	NestJS, Node.js, Next.js	Cloud	AWS S3, EC2, RDS, Cognito
Languages	TypeScript, JavaScript, Python	Infra	Docker, GitHub Actions
Databases	PostgreSQL, MongoDB, Redis, Elasticsearch	Messaging	BullMQ, Redis Queues
		Testing	Jest (Unit & E2E)

EDUCATION & LANGUAGES

B.Eng. Software Engineering

HCMUTE, Ho Chi Minh City · Aug 2021 – June 2026

Vietnamese — Native

English — Intermediate (TOEIC 740)