Hai Hoang Van

Senior Fullstack Engineer

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SUMMARY

Senior Fullstack Engineer with 9+ years of experience building end-to-end web applications across frontend and backend. Expert in modern JavaScript/TypeScript ecosystem (React, Next.js, Node.js, NestJS), with experience in Golang, and proven ability to architect scalable systems, optimize performance, and deliver complete features from database to UI. Experienced in e-commerce, healthcare, Web3, and EdTech domains.

SKILLS

- **Frontend:** Next.js, React, Nuxt.js, Vue.js, TypeScript, TailwindCSS, ChakraUI
- **Backend:** Node.js, NestJS, Golang, Express.js, tRPC, Prisma, REST APIs, GraphQL
- **Database:** PostgreSQL, MySQL, Redis, Database Design, Query Optimization
- **Testing:** Playwright, Cypress, Jest, Vitest, Unit/Integration/E2E Testing
- **DevOps/Cloud:** Docker, CI/CD, AWS, Kubernetes, Microservices Architecture, Kafka, Message Queue
- **Other:** System Design, API Design, Performance Optimization, Agile/Scrum

KEY PROJECTS

- **E-commerce Platform:** Architected and implemented **full-stack e-commerce solution** with scalable **microservices backend** (Node.js, NestJS), **frontend storefronts** (Nuxt.js), and **admin portals**, powering **$4M/month dropshipping operations** with optimized checkout flows and payment processing.
- **Healthcare SaaS:** Built end-to-end infusion-center platform using **T3 stack** (Next.js, tRPC, Prisma), implementing **FHIR-compliant APIs**, database schemas for patient/scheduling data, and comprehensive frontend with **feature flags** and **e2e testing**.
- **Web3 Applications:** Developed full-stack decentralized applications with **Solana/EVM smart contract integrations**, **backend APIs** (NestJS, Golang) for transaction processing and user management, and **React frontends** with wallet connections and real-time blockchain data.

OPEN SOURCE

- [valifetch](#)**:** Type-safe HTTP client built on native fetch with Valibot schema validation, featuring automatic type inference, retry logic, and request/response hooks.
- [nestjs-solana-kit](#)**:** NestJS integration for Solana @solana/kit v5.x, providing 12 production-ready services for account operations, transaction building, and WebSocket subscriptions.

EXPERIENCE

Senior Software Engineer – Blockchain (Solana-focused)

Feb 2024 – Present — Moonraise – Blockchain and Web3 development on the Solana ecosystem

- Worked directly with international clients from **Korea, Singapore, and global markets** to deliver Web3 solutions.
- Developed **full-stack dApps** with Next.js/React frontends and **NestJS/Golang backends**, implementing complete features from API design to UI.
- Built **backend services** handling transaction flows, user authentication, wallet management, and integration with Solana RPC nodes.
- Designed and implemented **RESTful APIs and database schemas** (Prisma ORM) for user data, transaction history, and on-chain events.
- Implemented **Solana programs with Anchor**, including smart contracts for randomness, prize pools, and SPL token operations.
- Optimized backend performance with caching strategies (Redis), database query optimization, and efficient blockchain data fetching.

Senior Software Engineer – Endue

May 2023 – Jan 2024 — US healthcare startup – SaaS platform for infusion centers

- Built **full-stack features** using **T3 stack** with type-safe API layer (tRPC), database modeling (Prisma), and Next.js frontend.
- Designed **database schemas** for complex healthcare data (patients, appointments, treatments, medications) with proper relationships and constraints.
- Implemented **FHIR-compliant APIs** for healthcare data exchange, ensuring proper validation and error handling.
- Developed backend business logic for scheduling optimization, resource allocation, and notification systems.
- Built frontend interfaces for data entry, visualization, and workflow management with real-time updates.
- Integrated **LaunchDarkly** for feature management and deployed comprehensive **Playwright e2e tests** across the stack.

Senior Software Engineer – Depocket, Hanoi

Apr 2022 – Mar 2023 — Crypto on-chain tracking and portfolio management application

- Developed **full-stack features** for crypto portfolio tracking with React frontend and Node.js backend services.
- Built **backend APIs** for blockchain data aggregation, caching strategies for on-chain data, and WebSocket connections for real-time updates.
- Optimized **database queries and indexing** for fast portfolio calculations across multiple chains and wallets.
- Implemented **EVM chain integrations** on both backend (Web3.js, Ethers.js) and frontend (wallet connections, transaction signing).
- Designed and implemented caching layer (Redis) to reduce blockchain RPC calls and improve response times.

Senior Software Engineer – LessonBox, Hanoi

Apr 2021 – Mar 2022 — EdTech platform for creating, distributing, and consuming digital learning objects

- Developed **full-stack EdTech platform** with React frontend and **NestJS microservices backend**.
- Architected and implemented **microservices** for content management, user authentication, progress tracking, and analytics.

- Designed **database schemas** for learning content, user progress, and assessment data with efficient querying patterns.
- Built **RESTful APIs** with proper authentication (JWT), authorization, and input validation.
- Implemented frontend features using design system components and integrated with backend APIs.
- Set up **CI/CD pipelines** with GitHub Actions deploying to **Kubernetes (EKS)** with automated testing and rollback capabilities.

Senior Software Engineer – Upatra, Hanoi
Sep 2020 – Mar 2021 — Shopify app development studio

- Developed **full-stack Shopify apps** with Express.js/Node.js backends and React frontends integrated with Shopify APIs.
- Implemented **OAuth flows**, webhook handlers, and background job processing for Shopify data synchronization.
- Built **Freshdesk integration** with backend services handling webhook events, data transformation, and API communication.
- Designed database schemas for app data storage and implemented efficient querying for merchant dashboards.

Full Stack Software Engineer – UPLUS Solutions & Technologies (earlier Upinus), Hanoi
Jan 2018 – Aug 2020 — E-commerce solutions company focused on checkout and dropshipping

- Developed **full-stack e-commerce platform** serving **$4M monthly revenue**, including checkout flows, payment processing, and order management.
- Built **microservices backend** with Node.js/Express.js handling payments, inventory, order processing, and third-party integrations.
- Implemented **frontend storefronts** (Nuxt.js with SSR) and **admin dashboards** (Vue.js) with real-time data synchronization.
- Designed **database schemas** for products, orders, customers, and payments with complex relationships and transaction handling.
- Optimized **backend performance** through caching, database indexing, query optimization, and asynchronous processing.
- Integrated **payment gateways, shipping APIs**, and fulfillment services with proper error handling and retry logic.
- Introduced **Cypress e2e testing** covering critical user flows from frontend to backend.

Junior Software Engineer – Enzimify, Hanoi
Feb 2017 – Dec 2017 — Shopify app development startup

- Developed **full-stack Shopify apps** using Express.js backends and Vue.js frontends.
- Built **backend services** with Shopify API integrations, webhook processing, and event tracking systems.
- Implemented data processing pipelines using **Kafka** for scalable analytics and reporting features.
- Deployed and managed applications on **AWS** (EC2, RDS, S3) with monitoring and logging.

EDUCATION

- **Completed all IT courses at Hanoi University of Science and Technology**
- **Vietnam Mathematical Olympiad Award — Hung Yen Specialized High School**