

# Ha Quoc Viet

DOB: 15/02/2000

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## PERSONAL STATEMENT

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- Software development with 5 years of experience.
- Backend-focused software engineer with primary expertise in system architecture, API development, and database optimization.
- Expertise in creating user interfaces for web and mobile using ReactJS, Next.js, and React Native.
- Expertise in designing scalable backend solutions using NodeJS, ExpressJS, NestJS, and event-driven architectures with Kafka and Redis.
- Strong foundation in Monolithic and Microservices system design (Event-driven architecture).
- Experienced in database management and optimization with MongoDB, PostgreSQL, and MySQL.
- Worked with both Windows and Unix operating systems.
- Hands-on knowledge in cloud deployment and infrastructure management using AWS (S3, EC2, ECS, Cloudfront, RDS, Lambda, EventBridge).

## WORK EXPERIENCE

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### Brighte

Mar. 2025 – Present

*Fullstack Developer & Technical Leader at CMC Global*

- Brighte is an Australian fintech company specializing in clean-energy home installations. The platform provides consumer loans and flexible payment plans (including zero-interest options) for sustainable home upgrades such as solar panels, batteries, and energy-efficient systems.
- Participated in a rigorous interview process with the client, including technical rounds with senior and lead developers, and was successfully selected for the Technical Leader role.
- Leading a cross-functional team of 12 members to develop and deliver product features with a strong focus on performance, scalability, and timely delivery.

### Technologies:

- Languages: **JavaScript, TypeScript.**
- Backend: **Node.js, NestJS.**
- Frontend: **ReactJS, Next.js.**
- Database: **PostgreSQL, DynamoDB.**
- Deployment & Cloud: **AWS Lambda, AWS EventBridge.**

### Project: **Vendor Webhook**

- Designed and developed a comprehensive webhook management module in the Vendor Portal, allowing vendor administrators to create, test, manage, and monitor webhooks.
- Implemented features including webhook creation, editing, deletion, enable/disable toggling, and duplicate prevention based on unique combinations of URL and event.
- Enforced mandatory webhook testing before activation to ensure proper integration and endpoint responsiveness.
- Built retry and locking mechanisms: webhooks are automatically locked after exceeding 5 failed attempts, with email notifications sent to vendor admins.
- Supported integration for 3 core events: **Lead acknowledged, Quote accepted, and Application approved.**
- Developed detailed webhook log views, allowing vendor admins to inspect request/response data and diagnose failures.
- Improved vendor automation workflows and reliability, significantly reducing manual coordination and enhancing real-time integration.

## Project: **Customer Data Right (CDR) – Income Detection & Calculation**

- Designed and implemented a robust income analysis engine using bank transaction data shared via CDR (Consumer Data Right), enabling automated income estimation for credit assessment workflows.
- Developed a multi-phase algorithm combining category-based filtering, clustering, similarity scoring (Levenshtein + amount tolerance), frequency detection, and income normalization.
- Clustered similar transactions using weighted similarity scores (70% description, 30% amount) to identify distinct income streams while mathematically preventing double-counting.
- Applied frequency detection heuristics based on transaction gap analysis to classify income patterns (weekly, fortnightly, monthly, quarterly) and convert them to monthly equivalents.
- Implemented a confidence scoring system factoring in frequency consistency, data sample size, and variance to ensure reliability in financial decision-making.
- Handled edge cases such as base salary vs overtime, bonus detection, seasonal income, and insufficient data using adaptive logic for conservative estimation.
- Produced a comprehensive output including normalized monthly income, inferred frequency, cluster confidence scores, and audit metadata for downstream processing.
- Achieved over 90% accuracy in detecting regular income (e.g. salary/pension), 85%+ frequency classification accuracy, and monthly amount estimations within 5% of actual income.
- Reduced manual income verification workload by 80% and enabled risk-based decision-making through transparent scoring and automated detection.
- Engine designed to handle 95%+ of real-world transaction scenarios with robust quality checks, single-assignment clustering, and progressive tolerance handling.
- **Received high praise and recognition from stakeholders for rapid delivery of the algorithm and initiative in independently designing an effective, production-ready solution.**

## **MXV Exchange Platform**

Sep. 2023 – Mar. 2025

*Fullstack Developer at Mercantile Exchange of Vietnam / Software Development*

- The MXV Exchange Platform is an online trading platform for commodity derivatives in the energy and agricultural sectors. It supports real-time trading and enables domestic investors to access the global CQG platform via the FIX protocol, while also providing access to both real-time and historical market data.
  - Designed and implemented a microservices-based architecture to handle high-volume trading transactions.
  - Developed scalable backend APIs with ExpressJS and NestJS, ensuring secure and high-performance order execution.
  - Enabled vertical scaling by utilizing worker threads and Node.js built-in cluster to fully utilize CPU resources.
  - Integrated Kafka and Redis for real-time data processing and event-driven services.
  - Optimized database schema design for MongoDB and PostgreSQL to improve query performance.
  - Optimized database performance through efficient database configuration, connection pooling, SQL query tuning, and the implementation of master-slave architecture, partitioning, sharding, and other performance-enhancing techniques.
  - Managed Dockerized deployments with Nginx for scalable backend services.
  - Built the frontend in Next.js and React Native based on user requirements and Figma, integrating efficiently with the backend system.
- **Technologies:**
  - Languages: **JavaScript, TypeScript.**
  - Backend: **NodeJS, ExpressJS, NestJS, Kafka, Redis.**
  - Frontend: **Next.js.**
  - Database: **MongoDB, PostgreSQL.**
  - Deployment: **Docker, Nginx.**

**VitaDairy & Traphaco ZMA (Second Job as a Freelancer)**  
*Freelance Developer at Tesosoft / Software Development*

May. 2023 – Jun. 2025

- Developed and optimized UI for VitaDairy's admin management
- Developed and optimized UI for Traphaco Zalo mini app.
- Refactored backend logic for Traphaco ZMA and Vitadairy loyalty application, fixing critical bugs.

• **Technologies:**

- Languages: **JavaScript, TypeScript.**
- Backend: **NodeJS, NestJS, Redis.**
- Frontend: **React.js.**
- Database: **PostgreSQL.**
- Deployment & Cloud services: **AWS S3, AWS RDS.**

**Amai Content**

Dec. 2021 – Sep. 2023

*Backend Developer at Amai Agency / Software Development*

- Amai Content is an application designed to optimize content and manage multi-platform social networks such as Facebook, Google My Business, Instagram, and more.
  - Built a transaction management system for automated payments integrated with Vietcombank and A Chau Bank.
  - Developed a real-time messaging system for multi-platform content management using Facebook Messenger API.
  - Created backend services using Google Business Profile API, enabling data synchronization, analytics, and media management.
  - Developed an automated workflow for publishing content across multiple social media platforms
  - Designed efficient MongoDB and MySQL schemas to optimize database queries.

• **Technologies:**

- Languages: **JavaScript, TypeScript.**
- Backend: **NodeJS, ExpressJS.**
- Database: **MySQL, MongoDB.**

**JUSEI Master**

Feb. 2021 – Dec. 2021

*Backend Developer at Chainos Solution / Software Development*

- JUSEI Master is a study application for the national examination for Judo therapy experts.
  - Developed data analysis and statistics features, optimizing performance of backend queries.
  - Designed and implemented scalable MongoDB schemas to handle large data sets efficiently.

• **Technologies:**

- Languages: **TypeScript.**
- Backend: **NestJS.**
- Database: **MongoDB.**

**ADDITIONAL SKILLS**

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- English Level: **B2**
- Version Control: **Git, GitHub, GitLab.**
- Development Tools: **Visual Studio Code, Jira, Trello.**
- Automation & Scraping: **Puppeteer, Selenium.**

**EDUCATION**

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- University: **Vietnam National University - Ha Noi University of Science**
- Major: **Computer & Information Science Advanced Program.**