

Hai Nguyen Thai

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Skills

- **Languages:** C# (.NET), JavaScript (Node.js, Angular)
- **Frameworks/Tech:** Entity Framework, Dapper, Kafka, Serverless, Docker, RESTful APIs, gRPC, WebSocket
- **Databases:** MS SQL Server, PostgreSQL, DynamoDB, Redis
- **Cloud:** AWS (Lambda, SQS, S3, CloudWatch, API Gateway), Azure (App Insights, SQL Database, Blob Storage)
- **Architecture/Methodologies:** Distributed Systems, Event Driven Architecture, Event Sourcing, Domain-Driven Design (DDD), Command Query Responsibility Segregation (CQRS), Agile
- Strong foundation in computer science fundamentals, including data structures, algorithms, OOP, design patterns
- Quick adaptability to new technologies with a proactive, solution-oriented mindset
- Proven ability to manage multiple projects, meet tight deadlines, and collaborate effectively with stakeholders
- Skilled in analyzing and understanding requirements through close collaboration with stakeholders

Professional Experience

NCS (IRAS) | Singapore

Jun 2022 – Present

Back-end Leader / Senior Software Engineer

- Led the design and development of a high-throughput microservice for Finance (Ledger, GIRO, Payment), integrating with ABS and multiple payment channels to process multi-million user batches for the national tax authority
- Applied event sourcing, event streaming to capture, store, and replay financial payment events from multiple sources to capture and replay financial transaction, ensuring 100% auditability and strict compliance with financial reconciliation standards.
- Optimized system performance by identifying and resolving bottlenecks, achieving a 25% performance boost, significantly reducing processing time, enhancing user experience, and ensuring high availability and fault tolerance
- Designed, developed reusable components, cutting maintenance costs by 20%, accelerating project timelines by 30%
- Improved batch processing of large datasets via parallel execution and query optimization, increasing data handling efficiency by 40%, essential for managing million-record financial transactions.
- Led system architecture reviews and technical design sessions, defining sequence diagrams, database schema, event topics, and domain models. This ensured adherence to DDD, event-driven architecture, and CQRS principles
- Minimized system downtime by implementing root cause analysis, developing walk-through solutions and recovery strategies, and establishing proactive system monitoring. This significantly reduced incident resolution time
- **Best Quality Award:** For delivering high-quality outcomes and technical excellence.

FPT Software | Vietnam

Mar 2020 – May 2022

Technical Architect / Senior Software Engineer

- Optimized database performance by 20% through materialized views, indexing, partitioning, execution plans, and caching optimizations, reducing query execution time and improving application responsiveness
- Designed and built data-driven enterprise dashboard and analytics applications to fulfill diverse business needs, from descriptive analytics to advanced forecasting, empowering data-driven decision-making across the organization
- Led software architecture design and conducted proofs of concept (PoCs) for new technologies to ensure alignment with business goals and resolved technological challenges across various projects
- Managed 30+ engineers across five microservice teams that achieved 98% customer satisfaction, 100% on-time delivery
- Collaborated with product managers to define technical requirements, prioritize features resulting in 30% efficiency
- Automated deployment processes by implementing CI/CD Azure Pipelines reducing release cycles by 50%
- **Top Performer:** Ranked top 10 out of 400 engineers in the unit, FHM.EMU
- **Platinum Member:** Recognized as part of the top 3% of FPT Software engineers for outstanding contributions

Rikkeisoft | Vietnam

May 2019 – Oct 2019

Software Engineer

- Built a multi-platform ad integration system for Google and Facebook, improving ad performance by 30%.
- Developed an OpenCV-Python-based video processing solution to detect inactive conveyor rollers, reducing downtime.

Education

Posts and Telecommunications Institute of Technology, Vietnam

Sep 2015 – Feb 2020

Bachelor of Engineering in Information Systems | Degree classification: Good

Certifications

- AWS Certified Solutions Architect, SAA-C03
- Data Structures, UC San Diego (Coursera)
- SQL Nanodegree, Udacity
- Generative AI for Software Developers, IBM