



PHẠM NGỌC THOẠI KỲ

SENIOR FULL-STACK SOFTWARE ENGINEER

About me

Software engineer with over 8 years of experience in web application development, specializing in backend engineering, system architecture, and JavaScript-based technologies. Experienced in designing scalable solutions, solving complex technical problems, and optimizing application performance. A proactive and adaptable team contributor with strong logical thinking, a continuous-learning mindset, and a passion for sharing knowledge and improving engineering quality.

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City
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- Phone : 077-769-4436
- Birthday : 17/06/1992
- CV online : <https://cv.thoai1992.com>

Technical Skills

- **Backend & Microservices:** Proficient in building scalable backend systems with Node.js (Express.js, NestJS) and Python (FastAPI). Experienced in designing microservice architectures and implementing event-driven communication using Apache Kafka.
- **Data, Search & Real-Time Processing:** Strong experience in PostgreSQL and MySQL database design, query optimization, and performance tuning. Familiar with distributed transaction management using the Saga pattern, real-time data synchronization through Change Data Capture (CDC) with Kafka and Debezium, WebSocket-based communication using Socket.IO, and search and analytics solutions powered by Elasticsearch.
- **Frontend Development:** Experienced in building responsive web applications with React.js and Vue.js using Tailwind CSS, Ant Design, and Vuetify. Experienced in state management, form validation, API integration, and server-state optimization and caching for full-stack applications.
- **DevOps & Cloud Infrastructure:** Experienced in deploying secure and scalable systems on AWS (VPC, IAM, S3, CloudFront, ECS Fargate/EC2, RDS, SQS, Lambda, CloudWatch, etc...) and defining Infrastructure as Code (IaC) with Terraform. Proficient in automating CI/CD pipelines with Jenkins and managing Docker, Nginx, and Linux environments.
- **Security & Identity:** Hands-on experience implementing authentication and authorization mechanisms, including JWT-based authentication, role-based access control, API security, TLS configuration, ensuring data and system integrity.
- **Professional Mindset:** Committed to designing maintainable, high-performance systems that support long-term scalability. Detail-oriented, proactive, and focused on delivering practical technical solutions that meet both business requirements and customer expectations.

Experience

COMPANY NAME: TRANCOSMOS TECHNOLOGY VIETNAM (2023-Present)

Project: CRM System / Trans-crm

- Developed backend services for a CRM platform for contact centers, supporting customer management, case/ticket handling, call history, email, surveys, FAQ and notifications, operational dashboards, data import/export, and role-based access control.

Tech Stack:

- Python (FastAPI), SQLAlchemy, Twilio, Faster-whisper, OpenAI API (LLM), Amazon Aurora (RDS), AWS Application Load Balancer (ALB), Redis, Elasticsearch, Apache Kafka + Debezium, Amazon S3, Amazon SQS, Amazon SES, Amazon CloudWatch Alarms, AWS Lambda, Amazon ECS on AWS Fargate, Docker, Terraform, Jenkins, SonarQube, Poetry, and Pytest.

Role: Senior Full-stack Software Engineer

- **System Architecture & Design:** Led the technical design of web applications, architecting scalable APIs, robust database structures, and reusable components based on complex business requirements.
- **Technical Mentoring & Code Quality:** Provided technical support and knowledge sharing to team members, particularly in troubleshooting complex issues and applying development best practices. Conducted code reviews to ensure code quality, security, performance, and adherence to coding standards.
- **Project Execution & Collaboration:** Collaborated cross-functionally with PMs, BAs, QA, and designers to analyze requirements, identify technical risks, and propose optimal implementation strategies to ensure high-quality delivery.
- **Task Coordination:** Assigned and coordinated development tasks based on project priorities and team capacity. Monitored progress, identified blockers, and effectively communicated technical status to stakeholders.

- **Operations & Troubleshooting:** Investigated and resolved complex technical issues, performance bottlenecks, and production incidents. Supported end-to-end testing, CI/CD deployment, and post-release issue resolution.
- **Continuous Improvement:** Proactively contributed technical initiatives and process improvements to enhance team productivity, product quality, and overall customer satisfaction.

COMPANY NAME: REM VN (2020-2023)

Project: Cheers

- Developed an employee engagement and recognition platform supporting peer-to-peer appreciation, attendance tracking, reward point exchange, gift redemption, and organizational data analytics for management.

Tech stack:

- Node.js (NestJS), Vue.js, Pinia, Vuetify, AWS RDS for PostgreSQL, AWS Application Load Balancer (ALB), Redis, AWS S3, AWS CloudFront, AWS ECS Fargate, AWS SQS, AWS SES, AWS Lambda, Socket.io, Terraform, Docker, Jenkins, etc ...

Role: Full-stack Software Engineer

- Developed and maintained end-to-end features for an employee engagement and recognition platform across both frontend and backend systems.
- Designed and integrated RESTful APIs, database structures, and reusable user interface components.
- Implemented business features related to employee recognition, reward points, product exchange, and organizational data analysis.
- Collaborated with product owners, designers, and QA engineers to clarify requirements and deliver high-quality features.
- Investigated production issues, fixed defects, and improved application performance and maintainability.

COMPANY NAME: SUZU-GROUP (2018 - 2020)

Project: K-POP Fan Community Platform

- A social networking platform enabling users to connect, interact, and share multimedia content (articles, videos, images) around trending topics.

Tech Stack:

- Nodejs (Express.js), Socket.io, Amazon RDS for MySQL, AWS Application Load Balancer (ALB), Http Live Streaming (HLS) + AWS Elemental MediaConvert, Amazon EventBridge, Amazon Step Function, AWS Lambda, Amazon S3, Amazon CloudFront, Amazon ECS Fargate, Amazon SQS, Amazon SES, Redis, etc ...

Role: Backend Software Engineer

- Developed and maintained backend services and APIs for a social networking platform.
- Implemented business logic for user accounts, posts, articles, videos, comments, and social interactions.
- Designed database schemas and optimized queries to ensure data consistency and application performance.
- Worked closely with frontend developers and QA engineers to integrate APIs and resolve functional issues.
- Supported application releases, bug fixing, and ongoing system maintenance.

Education

EDUCATION: HCM COLLEGE OF INFORMATION TECHNOLOGY

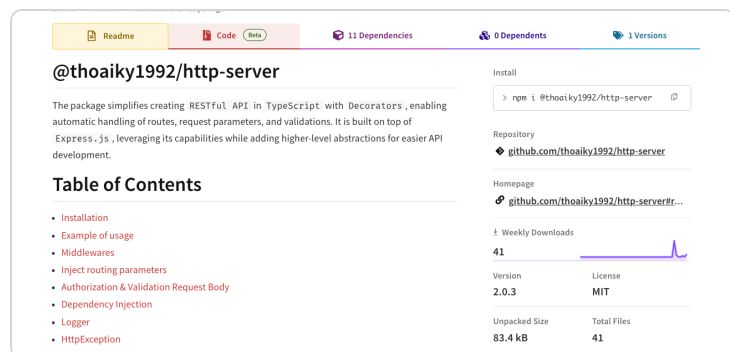
Major: Software Engineering

- Acquired core knowledge in information technology, laying the groundwork for a long-term professional career in software engineering.

English

- My English is currently at an intermediate Level.

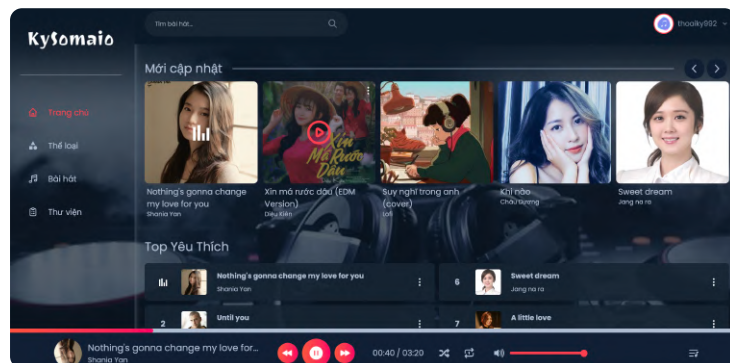
★ My Project



NODE PACKAGE

- The package simplifies creating RESTful API in TypeScript with Decorators, enabling automatic handling of routes, request parameters, and validations. It is built on top of Express.js, leveraging its capabilities while adding higher-level abstractions for easier API development.

Link: <https://www.npmjs.com/package/@thoai1992/http-server>



WEB MUSIC APPLICATION

The music application is an online platform that allows users to listen to unlimited music without any charge. Users can browse and select from a rich library of music from various genres and artists, combined with personalized features such as creating playlists and recommending songs based on preferences.

Live Demo: <https://music.thoai1992.com>

Source Code: <https://github.com/thoai1992/music-app-frontend>