

Manh Nguyen

Middle Backend Engineer – Python | Golang | TypeScript

Hanoi, Vietnam

nguyenminhmannh2001@gmail.com | 0395 237 842

[LinkedIn](#) | [Blog](#)

Summary

Backend engineer with 3+ years of experience building scalable distributed systems and multi-tenant SaaS platforms. Strong expertise in microservices, event-driven architecture, serverless systems, and performance optimization. Experienced in full-stack development with TypeScript/React. Passionate about delivering reliable, high-performance solutions that drive business efficiency and reduce operational costs.

Technical Skills

Languages: Python, Golang, TypeScript, JavaScript

Backend: Flask, Gin, Express.js, GraphQL, gRPC, Celery, SQLAlchemy

Frontend: React, Redux Toolkit, Material-UI

Databases: PostgreSQL, MongoDB, Redis, DynamoDB, Elasticsearch

Infrastructure & Cloud: Docker, AWS Lambda, SQS, S3, ECR, Serverless Framework, GitHub CI, Prometheus, Grafana

Architecture: Microservices, Event-driven Design, Serverless, Monorepo

Work Skills

- **Autonomous & Ownership:** Able to work independently, take full ownership of tasks, and deliver high-quality results with minimal supervision
- **Collaboration:** Experienced in coordinating with cross-functional teams to handle complex features and resolve production issues effectively
- **Problem-solving:** Strong analytical thinking and systematic approach to investigate root causes and debug complex distributed systems
- **Debugging & Troubleshooting:** Skilled at analyzing logs, tracing data flows, and fixing production incidents under pressure
- **Continuous Learning & Knowledge Sharing:** Self-motivated learner who actively explores new technologies and shares knowledge through documentation and internal sessions

Experience

FullStack Engineer

Geniee Inc.

Hanoi, Vietnam | Oct 2025 – Present

Working across full stack in a large monorepo on two core SaaS products: **Chikyu** (SFA/CRM platform) and **ARCH** (Notion-like customizable content & data visualization platform).

- **Leveraged AI-powered development tools (Cursor & Claude)** to significantly accelerate feature development and improve code quality: used Cursor for rapid prototyping and refactoring, and Claude for complex problem-solving, architecture design, and generating high-quality code/documentation, resulting in faster delivery cycles and reduced manual coding effort.

SFA/CRM (Chikyu)

- Designed and implemented Zoom Meeting/Webinar integration with secure OAuth and async data sync, eliminating manual data entry and automating attendance tracking for 1,000+ participants.
- Built high-throughput bulk CSV import pipeline supporting 5,000+ records per batch using S3 and SQS, with real-time progress tracking and idempotent processing.
- Architected event-driven Process Builder automation engine, enabling business users to configure complex workflows without writing code.
- Developed, maintained and optimized a fully serverless backend with AWS Lambda functions, SQS queues, and S3 triggers in a multi-tenant environment.
- Implemented robust SQS job queue system with deduplication, concurrency control, and exponential backoff, ensuring reliability in high-concurrency multi-tenant workloads.

ARCH (Notion-like Platform)

- Eliminated N+1 query issues in GraphQL resolvers using DataLoader batching, significantly improving query performance.
- Optimized complex databases queries with composite indexes, reducing execution time.
- Implemented reliable background job system with idempotency and retry mechanisms for bulk operations including email notifications.
- Designed direct client-to-GCS file upload using signed URLs, eliminating server-side bottlenecks for large concurrent uploads.
- Designed and implemented user-facing page flows and reusable UI components, translating product and design requirements into responsive, maintainable React/TypeScript interfaces.

Technologies: TypeScript, Node.js, React, GraphQL, PostgreSQL, AWS, Redis

Backend Engineer

Viettel Cyber Security

Hanoi, Vietnam | Jul 2023 – Oct 2025

Developed core backend services for **SOAR** (Security Orchestration, Automation, and Response) — a large-scale, multi-tenant, event-driven system processing **50K+ of security events daily**.

Key Contributions:

- Designed task dispatching and coordination system for playbook automation with strong error handling and idempotency, achieving **99% success rate** on 50K+ daily events.
- Implemented Outbox Pattern to ensure data consistency across PostgreSQL, Kafka, and Elasticsearch, eliminating race conditions and data loss.
- Introduced **Celery** to handle asynchronous task processing, enabling efficient and reliable execution of security events in the SOAR platform.
- Implemented **PgPool connection pooling** between services and PostgreSQL to improve connection efficiency, reduce database resource usage, and decrease connection-related errors.
- Integrated ML prediction pipeline into workflows, helping reduce Mean Time to Resolution (MTTR) by **20%**.
- Refactored the orchestration service to use the official **Docker SDK in Go** for dynamically creating and managing isolated Docker containers to execute workflow tasks in a secure and independent environment.
- Built real-time notification system with Kafka and WebSocket, providing instant alerts and improving response time for security analysts.
- Applied fault-tolerant patterns (circuit breaker, exponential backoff, idempotent retries) to improve overall system stability.

Technologies: Python, Flask, Celery, gRPC, PostgreSQL, Kafka, Elasticsearch, Docker, Prometheus, Grafana

Key Achievements

- **Innovation Award** — Built an internal automation tool that aggregates Jira and Airtable data to calculate individual and team performance metrics, eliminating substantial manual effort during monthly, quarterly, and yearly reviews.
 - **Hackathon 3rd Prize** — Built a system map visualization tool to visualize interdependencies between source code modules, allowing QA teams to accurately detect impacted areas on every release and cutting test planning time.
 - **Outstanding Contributor 2024** — Recognized for technical contributions, building internal automation tools to boost work efficiency, and knowledge sharing.
 - Multiple **Employee of the Month** awards for ownership and problem-solving.
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Education

Bachelor of Computer Science

Hanoi University of Science and Technology

Hanoi, Vietnam | 2019 – 2024

Degree Classification: Good

Projects

Twitter Clone

[GitHub Repository](#)

Social Media Platform

Developed post creation functionality and real-time feed generation for a Twitter-like social media application. Implemented hybrid fanout feed generation with Redis caching and asynchronous processing using RabbitMQ to ensure low-latency personalized feeds.

Technologies: FastAPI, React, PostgreSQL, Redis, RabbitMQ, Nginx, Docker Compose, Prometheus + Grafana

Video Platform

[GitHub Repository](#)

Video Streaming and Media Platform

Developed an end-to-end video sharing and streaming platform supporting video upload, background transcoding to HLS format, metadata management, caching, and efficient video streaming. Included observability and full-text search capabilities.

Technologies: Go, React + TypeScript + Tailwind, MongoDB, Redis, LocalStack (S3), FFmpeg, Elasticsearch, Docker Compose

Certifications

TOEIC 815

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Interests

Running · Swimming · Football · Reading · Traveling