



# BAO NGUYEN NGOC

Full Stack & AI Engineer

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🔗 [View project highlights here](#)

## Summary

Product-focused Engineer leveraging **6 years of expertise** in Advanced Web Engineering and Artificial Intelligence. I build scalable platforms that integrate **Computer Vision** and **Generative AI** directly into business workflows. My core strength lies in designing efficient, type-safe architectures capable of handling heavy concurrent workloads while maintaining a seamless user experience. Committed to delivering high-performance software with automated, enterprise-grade deployment pipelines.

## Experience

### Webmark

September 2023 – Present

Full Stack / NLP Engineer

Remote

🔗 <https://webmarkhq.com/>

- **AI Customer Service Agent (Kiosk Platform):** Engineered a **Retrieval-Augmented Generation (RAG)** system integrated with dynamic Knowledge Base ingestion. Achieved a **100% automated resolution rate** for Tier-1 support queries immediately post-launch.
- **Intelligent Job Matching Engine:** Developed a semantic analysis tool utilizing **Advanced Large Language Models (LLMs)** to parse unstructured resume data. Created algorithms to generate quantitative compatibility metrics (e.g., *Skill Match & Gap Analysis*), empowering data-driven recruitment decisions.
- **Seamless Frontend Integration:** Implemented **asynchronous UI injection strategies** to embed intelligent agents into third-party client environments without compromising host performance.
- **Scalable Backend Architecture:** Architected **high-throughput asynchronous microservices** to orchestrate complex communication between user interfaces, vector databases, and AI inference engines.

### SCS Solutions

May 2022 – September 2023

AI Engineer & Technical Lead

Ho Chi Minh

🔗 <https://scssolutions.io/>

- **Technical Leadership:** Led a cross-functional team to architect and deploy industrial Computer Vision solutions, directly addressing critical operational inefficiencies. Translated complex business requirements into deployable technical specifications.
- **DataOps & Model Training:** Established robust **Data Operations pipelines**, managing the full lifecycle from designing rigorous data annotation protocols to training and fine-tuning custom neural networks for specific industrial contexts.
- **Edge Infrastructure & IoT Deployment:** Directed the **on-site physical implementation**, overseeing the configuration of Edge computing devices, IP cameras, and network infrastructure (Wi-Fi/LAN) to ensure stable, real-time data transmission.
- **End-to-End Vision Platform (Container Logistics):** Spearheaded the development of a recognition system for automated asset tracking.
  - Achieved **>90% extraction accuracy** via customized deep learning OCR architectures.
  - Reduced manual inspection workloads by **~60%** via automated anomaly detection.
  - **Performance Engineering:** Optimized inference pipelines using **hardware acceleration**, reducing latency to **<200ms per frame**.
  - **MLOps:** Revolutionized the delivery workflow by establishing automated CI/CD pipelines, slashing model deployment cycles from **days to <1 hour**.

### SPECIALIZED PROJECTS & FREELANCE EXPERIENCE

September 2020 – Present

(Focusing on Advanced Cloud Architecture and Video Processing)

Remote

### Scalable Automated Dubbing & Video Editing System | *System Architect*

- **Goal:** Architected a cloud-native platform for automated "speech-to-speech" localization and content generation.
- **Cloud Architecture:** Designed a hybrid infrastructure leveraging **Serverless Computing** for event-driven logic and **Container Orchestration** for heavy rendering workloads.
- **Advanced AI Integration:** Orchestrated a **Multi-Provider Strategy** combining best-in-class TTS/STT services to ensure natural prosody and voice preservation.
- **Workflow Automation:** Engineered a distributed publishing system capable of bypassing platform restrictions via complex proxy management.

### OCTA | *Computer Vision Developer (Part-time)* | 05/2020 – 05/2022

- Developed high-precision image processing software for **Optical Character Recognition (OCR)** tasks, focusing on maximizing throughput and accuracy in constrained environments.

### SPTECH | *Computer Vision Developer* | 09/2020 – 05/2022

- Created backend recognition systems for industrial manufacturing, specifically targeting **Product Identification** and **Automated Defect Detection**.

## Education

### University of Economics Ho Chi Minh City

July 2019 – July 2023

Ho Chi Minh City

Management Information Systems

Relevant Coursework: Database Design, SQL, C#, System Design, Data Structures