



Bao Nguyen Ngoc

Full Stack & AI Engineer

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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	