

Yong Zane

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SUMMARY

Full-stack engineer with 2 years of experience building and shipping production AI systems in customer-facing environments. Led end-to-end delivery across two AI products, from technical discovery with non-technical stakeholders to production deployment and incident response. Strong in Python and data engineering, with experience spanning AWS, RAG/LLM systems, computer vision, and enterprise integrations.

WORK EXPERIENCES

Advanced Remanufacturing and Technology Centre (ARTC), A*STAR

Research Engineer Full Time

Oct 2024 – Present

- Owned end-to-end delivery of two production AI products for MNC manufacturing customers, from technical discovery through deployment with solutions adopted across 10+ manufacturing departments.
- Led design and deployment of an enterprise AI platform for parsing 2D engineering drawings, partnering with engineering teams to replace manual data entry for more than 90 drawings/month.
- Designed and deployed a secure RAG platform into customers' VPCs, unifying fragmented engineering knowledge into a queryable knowledge base served by self-hosted LLMs, cutting document search time by 70%.
- Engineered a scalable, multi-tenant AI serving platform, sustaining 99.9% availability under variable load by queuing jobs and shifting models between GPU and CPU to avoid cold-start delays.
- Built customised frontends tailored to company-specific workflows such as sourcing, engineering, project management, adopted by 60+ users across teams and departments.

AWARDS

NTU CAO x ST Engineering Hackathon 2024

Apr 2024

First Runner-up

- Developed a surgical risk assessment system with machine learning to enable well informed tool usage decisions
- Applied medical domain expertise to improve the interpretability and usability of a clinical risk prediction pipeline.

NTU EEE MLDA Deep Learning Week 2024 Hackathon (Group Leader)

Mar 2024

First Runner-up

- Led a 5-person team, driving solution design, task ownership, and rapid prototyping.
- Developed a zero-shot video quality filtering pipeline that improved stability during text-to-video model fine-tuning.

RESEARCH PUBLICATIONS

[A Multi-Stage Hybrid Framework for Automated Interpretation of Multi-View Engineering Drawings Using Vision Language Model](#) [International Conference on Industrial Engineering and Applications (ICIEA)], 2025

[From drawings to decisions: A hybrid vision-language framework for parsing 2D engineering drawings into structured manufacturing knowledge](#) [Robotics and Computer-Integrated Manufacturing], 2025

[Automated Parsing of Engineering Drawings for Structured Information Extraction Using a Fine-tuned Document Understanding Transformer](#) [IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)], 2025

EDUCATION

Nanyang Technological University, Singapore

Master of Science (Artificial Intelligence) – Part-time

Aug 2026 – Jul 2028 (Expected)

Bachelor of Engineering (Bioengineering) – Full-time

Jul 2020 – May 2024

- Graduate with Honours (Distinction)

SKILLS

Programming Languages: Python, SQL, JavaScript, TypeScript, Bash, HTML/CSS, C++

Technologies: PyTorch, TensorFlow, LLMs, VLMs, Computer Vision, LangChain, LangGraph, MCP, RAG, HuggingFace, Transformers, MySQL, PostgreSQL, SQLite, AWS, Google Cloud Platform (GCP), Docker, Kubernetes, CI/CD, Node.js, React, Vite, Next.js, Electron