

SORRAWIT TREESUK (FRANK)

AI Developer | GenAI Solution Architect | AI System Analyst

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CAREER SUMMARY:

AI Developer with 2+ years of experience building **production-grade GenAI solutions** at enterprise scale. Specialized in LLM platforms, Multi-agent systems, and AIOps — achieving **75%** reduction in development time and deploying **7 domain-specific chatbots in one year**. Published researcher (arXiv) with proven business impact of **100M+ THB annually**. Experienced in transitioning from individual contributor to technical lead, designing scalable architectures (Security, CI/CD, AIOps) for junior teams to implement.

CORE COMPETENCIES

- Solution Design & System Thinking: End-to-end system architecture (Ingest → Retrieval → Agent → Gateway → Deployment).
- GenAI Engineering (Production): Multi-agent flows, RAG optimization, Guardrails, Fallback mechanisms, LLM Gateway design.
- DevOps & AIOps: Designing CI/CD pipelines for AI models, Automated Evaluation (LLM-as-a-Judge), and Security/Auth integration.

Technical Leadership: Mentoring junior developers, defining technical standards, and managing the transition from POC/MVP to Production.

TECHNICAL SKILLS

- GenAI & LLM: Multi-agent Systems (LangGraph), Advanced RAG, Prompt Engineering, LLM Gateways.
- Cloud & DevOps: Google Cloud Platform (GCP), Azure OpenAI, Docker, CI/CD, AIOps.
- Backend & Data: Python, FastAPI, Microservices, API Security, Vector Databases, Machine Learning.

PROFESSIONAL EXPERIENCE

AXONS (CPF IT Center) | AI Developer (Lead / Senior Responsibilities)

Bangkok, Thailand | 2023 – Present Transitioned to a Senior role focusing on Solution Architecture, AIOps, and Security, guiding junior developers in delivering production-grade systems.

- GenAI Platform & API Strategy: Architected a centralized **LLM Platform** using **OpenWebUI** frontend and **Cloud Run** backend (FastAPI + API Key Auth). Designed the system to support users without their own applications while providing APIs for other dev teams.
- Automated Chatbot Pipeline: Designed a "Zero-Code" ingestion pipeline where users upload documents to **SharePoint** (controlled via Excel), triggering automated **OCR**, **Chunking**, and **Indexing** into the Datastore.
- Scalability & Efficiency: Streamlined the development process, enabling the team to **deploy production chatbots across 7 distinct business domains** within one year.
- Resource Optimization: Reduced development effort from **4 developers/3 months per project to 1 developer/3 months** by standardizing the framework.
- Mentorship & Quality Control: Led the design of MVPs/POCs and supervised junior developers in production implementation, specifically in prompt optimization and setting up **LLM-as-a-Judge** testing loops using real user Q&A data.

Panasonic SPT | Electrical Engineer

2020 – 2023

- Managed PLC programming, maintenance, and process optimization for production lines.
- Solved critical production issues under high-pressure environments, ensuring minimal downtime.

Belton | Maintenance Engineer

2018 – 2020

- Conducted preventive maintenance and root cause analysis for machinery and on-site operational systems.

KEY PROJECTS

1. Moo D

Research: "When Pigs Get Sick" (Multi-Agent Swine Disease Detection)

(arXiv:2503.15204 | Co-author & System Architect)

- **Focus:** Addressed misdiagnosis in livestock farming using a **Multi-Agent System (MAS)** and **Mixture of Experts (MoE)** approach.
- **Solution:** Architected a **LangGraph-based workflow** involving specialized agents (Diagnostician, Critic) and a **Dual-Store RAG** (separating Disease vs. Drug data) on Vertex AI.
- **Impact:** Achieved diagnostic accuracy equivalent to professional veterinarians (validated by CPF). The system is estimated to generate a **business impact of ~100 Million THB/year** through disease prevention and mortality reduction.

2. GenAI Platform – OpenWebUI & Multi-Modal RAG

- Problem: Many business users needed AI access but lacked internal applications; existing tools failed to display source images from technical documents.
- Solution: Built a platform using OpenWebUI as the frontend, connecting to a Cloud Run backend.
 - Implemented Dynamic System Prompt Injection (wrapping user queries) to allow flexible agent behavior without code changes.
 - Key Innovation: Developed a "Source Image Retrieval" feature that returns actual images/diagrams from RAG documents directly in the chat preview (not AI-generated images), critical for technical manuals.
- Impact: Democratized AI access for non-technical users and provided a robust, secure API layer for the organization.

3. Corporate Chatbot Framework (Automated Pipeline)

- Problem: High demand for chatbots across multiple departments (HR, Legal, Farm) with limited development resources.
- Solution: Engineered a Self-Service Pipeline where:
 - Users manage content via SharePoint & Excel.
 - Automated scripts handle OCR and Vectorization.
 - Junior devs focus solely on Prompt Optimization and Evaluation loops.
- Impact: Successfully deployed 7 domain-specific chatbots in one year, reducing man-hours by ~75% while maintaining high accuracy through automated LLM-as-a-Judge testing.

4. Shrimp Price Prediction System

- Problem: Procurement team relied on intuition for long-term planning, leading to suboptimal budget allocation.
- Solution: Developed a LightGBM forecasting model integrating internal ERP data with external indicators (feed costs, weather, market indices).
- Impact: Deployed a PowerBI Dashboard with <10% MAPE (6-month horizon), enabling data-driven budgeting for the procurement team.

EDUCATION

- Bachelor's Degree in Electrical Engineering Kasetsart University, 2017

LEADERSHIP & SOFT SKILLS

- Leadership & Collaboration:
 - Led a cross-functional team of developer delivering solutions across business domains.
 - Mentored junior developers on technical implementation and timeline management to ensure on-time project delivery
 - Acted as an internal AI Consultant, advising other developers and data scientists on architecture design and model selection for optimal AI solutions.
 - Collaborated closely with non-technical stakeholders to translate business needs into technical solutions.
- Professional Skills:
 - Problem Solving, Critical Thinking & Analytics, Agile, Communication & Collaboration, Ability to Work Under High Pressure, Business Understanding.

DETAILED TECH STACK

- GenAI Frameworks: LangGraph, AutoGen, MCP/Tool Calling, System Prompt Injection, Guardrails.
- Cloud Platform (GCP): Vertex AI (Agent Builder/Datastore), Cloud Run, Cloud Build, Cloud Tasks/Scheduler, BigQuery.
- Backend & DevOps: Python, FastAPI, Flask, Docker, REST APIs, Microservices, OpenWebUI.
- Data & ML: LightGBM, Scikit-learn, Pandas, Pinecone, Vertex AI Search, MLflow.
- Security & Ops: API Key Auth, Cost Monitoring, Latency Optimization.