

Treesupan Suwannawong

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[GitHub](#) | [LinkedIn](#)

PROFESSIONAL SUMMARY

Innovative Software Developer and Computer Engineering Master's candidate with 4 years of experience building high-performance RAG systems and secure infrastructure. Specialized in optimizing complex data pipelines and delivering efficient AI-powered solutions that bridge the gap between technical architecture and business value.

CORE COMPETENCIES

- **AI & Data Engineering:** RAG Architectures, LLM Integration, Vector Databases (Milvus, Cassandra, PGVector), Automated ETL Pipelines, Web Scraping.
- **Infrastructure & Security:** Cloudflare Zero Trust, Docker/Containerization, Linux Administration (Fedora, Ubuntu, Kali, etc.), Nginx, M2M Security.
- **Languages & Tools:** Python, Go, Bash, Java, SQL, C/C++, FastAPI, Django, Angular, HTMX.
- **Strategic Leadership:** Technical Specifications, Architectural Design, Pragmatic Problem Solving, Cross-functional Collaboration.

PROFESSIONAL EXPERIENCE

Softnix Technology Co., Ltd. | Software Developer (Lead AI/Infra Focus)

Bangkok, Thailand | June 2024 – May 2026

- **Architected a multimodal ingestion pipeline** (PDF, OCR, Excel, and Text) that reduced end-to-end processing time from 45 minutes to under 10 minutes.
- **Designed and implemented a request queuing system** with a real-time status UI, eliminating system crashes during high concurrency and providing user transparency.
- **Migrated vector database infrastructure from Cassandra to Milvus**, reducing RAM usage by 60% and cutting insertion time from 1 hour to 10 minutes.
- **Established clean code standards and led technical reviews** with cross-functional teams to improve system maintainability and team collaboration.

The Proptech Connection | Data Integration | Bangkok, Thailand | October 2022 – April 2024

- **Aggregated 5,000+ investor profiles and 500+ companies** via automated Java and Python scripts to build a centralized intelligence platform, facilitating data-driven investment matching.
- **Automated multi-tab navigation for protected web interfaces** using Selenium and BeautifulSoup to unlock previously inaccessible data sources, expanding the firm's searchable investment universe.
- **Conducted deep-market analytics on global tech trends** to provide leadership with actionable insights for identify and evaluating high-growth real estate technology targets.
- **Transformed raw business requirements into production-ready data pipelines** to ensure 100% comprehensive market intelligence, allowing stakeholders to act on new contracts ahead of competitors.

Key Projects

AI-Knowledge (RAG System) | Lead Developer

- **Architected a high-accuracy RAG framework** for private datasets to minimize hallucination rates and improve retrieval relevance, ensuring reliable data-driven decision-making.
- **Managed the end-to-end product lifecycle** from technical specification to containerized deployment to ensure a seamless transition from development to production.

PurrfectKit & Home-Cloud Infrastructure | Lead Architect

- **Engineered a Zero Trust security framework** using Cloudflare Tunnels to establish secure remote connectivity for private data management, proving the feasibility of secure edge architectures.
- **Developed a modular Python toolkit** focused on clean, class-based architecture to maximize performance and ensure hardware-software compatibility on resource-constrained edge devices.

Education

Master of Science in Computer Engineering

King Mongkut's University of Technology Thonburi | Expected 2028

- **Research Focus:** Highly optimized edge architectures and secure AI deployment strategies.

Bachelor of Science in Information and Communication Technology

Sukhothai Thammathirat Open University | Graduated 2023