

Radchaneeporn Changpun

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[Portfolio](#) | [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

PROFESSIONAL SUMMARY

AI and data science professional with an M.Sc. in Computer Science (Chulalongkorn University, GPA 3.94/4.00), focused on designing and building AI agents, LLM/RAG systems, and applied machine learning. Strong in Python and modern agent frameworks across the full experiment-to-evaluation lifecycle, with hands-on experience supporting deployment alongside production teams. Skilled at translating business requirements into solution architecture, integrating AI with APIs and data, and communicating clearly with technical and non-technical stakeholders in international teams. Published AI researcher and AWS Certified AI Practitioner.

EDUCATION

M.Sc. in Computer Science, Chulalongkorn University

Aug 2023 – Dec 2025

Faculty of Engineering (GPA 3.94 /4.00)

Relevant coursework: Artificial Intelligence, NLP, Pattern Recognition, Data Science & Data Engineering Tools, Data Science Architecture, Computer Security, Research Methods in CS

Publication: Changpun, R. et al., "Agentic Stage-Based LLM Framework for Multi-Turn Mental Health Support Conversations in Thai," ISAI-NLP 2025, IEEE. [Paper](#)

B.Sc. in Chemical Engineering, Chulalongkorn University

Aug 2017 – May 2021

Faculty of Science

Publication: Nimmanterdwong, P.; Changpun, R. et al., "Applied Artificial Neural Network for Hydrogen Sulfide Solubility in Natural Gas Purification," ACS Omega, 2021. [Paper](#)

WORKING EXPERIENCE

PulseMetrics Pte Ltd

Oct 2025 – Present

Senior Associate, Data Science

- Work with CRM team client across two business units (Retail; Automotive Fast Fix), framing business questions and turning analytical results into clear, actionable insights for data-driven decisions
- Design and optimize high-throughput preprocessing pipelines for large-scale telematics sensor data (Big Data), applying data engineering principles to ensure data quality and reduce latency for downstream analytics and modeling

AIMET, Center of Excellence in Digital and AI for Mental Health

Jul 2024 – Aug 2025

Researcher

- Designed and built an end-to-end multi-agent LLM system (stage-based, approach-selection, and monitoring agents) for Thai mental-health support, with human-in-the-loop controls and stage-transition governance
- Owned the research lifecycle: ran experiments across multiple approaches and built AI evaluation and feedback loops; the system reached a 79% positive user-reaction rate and improved 7 of 8 support metrics in practitioner testing
- Worked closely with the deployment team to move the system into production, gaining hands-on experience with deployment, monitoring, and MLOps practices
- Applied Responsible AI and domain-alignment practices in a sensitive, regulated domain, collaborating with psychology experts
- Led and mentored a cross-functional team of researchers, developers, and interns through design and implementation

Wood PLC (Foster Wheeler)

Jan 2022 – Jan 2023

Chemical Process Engineer

- Designed and optimized chemical and energy processes for Thai oil & gas refinery clients at an international engineering consultancy, using data-driven analysis to improve operational efficiency

SELECTED PROJECTS

LLM-Based Thai Personal Income Tax Q&A Chatbot [\[GitHub\]](#)

- Ran an empirical architecture evaluation across four LLM patterns (Agentic RAG, Naive RAG, Long-Context LLM, Vanilla Inference) to select the best approach for a regulated domain
- Assessed trade-offs with NLP metrics (BLEU, ROUGE-L, BERTScore) and LLM-as-a-judge, demonstrating evidence-based architecture decisions
- Built the data pipeline with OCR and web scraping; deployed an interactive UI with Gradio

RAG Pipeline with Open-Source LLMs (Llama 2-13B) [\[GitHub\]](#)

- Architected a RAG pipeline connecting an LLM to an enterprise knowledge base (Scopus) via a Pinecone vector database with embedding-based semantic grounding
- Defined the RAG solution pattern (prompt orchestration, vector search, grounding) to reduce hallucinations; integrated with LangChain

Multi-Label Text Classification with RoBERTa [\[GitHub\]](#)

- Fine-tuned RoBERTa on Scopus data for a 40.3% Macro-F1 improvement (0.6687 vs 0.1894 baseline) via transfer learning and a custom architecture, using PyTorch and Hugging Face

Radchaneeporn Lab: Technical Content & Documentation [\[YouTube\]](#) [\[GitHub\]](#)

- Publish tutorials on modern LLM frameworks and document strategies for LLM cost optimization and system reliability

SKILLS

- **AI Agents & LLM Engineering:** Multi-agent system design, agent orchestration, RAG & Agentic RAG, prompt engineering & orchestration, vector search, semantic embeddings, long-context inference, fine-tuning (LoRA, QLoRA), human-in-the-loop controls
- **Machine Learning & Statistics:** Regression, classification, clustering, decision trees, neural networks, transformers; statistical & mathematical modeling; experiment design & evaluation, feature engineering
- **Evaluation & Engineering Practice:** AI evaluation frameworks, LLMOps concepts, AI observability, Responsible AI, debugging, system design, and data handling; hands-on exposure to model deployment and monitoring alongside deployment teams
- **Cloud & Infrastructure:** AWS (Certified AI Practitioner), cloud-based model training; Big Data processing; data-pipeline design; data quality; Pinecone vector database; Docker
- **APIs, Databases & Integration:** REST APIs, data-platform integration
- **Languages, Frameworks & Tools:** Python, Pandas, NumPy, Matplotlib, PyTorch, Scikit-Learn, Hugging Face, LangGraph, LangChain, LlamaIndex, AutoGen, Gradio, Weights & Biases (WandB), Git, Linux, Tableau, TypeScript, PostgreSQL
- **Collaboration & Communication:** Cross-functional leadership, mentoring, stakeholder alignment, international team experience
- **Industry Domains:** Retail, Energy (Oil & Gas, Natural Gas processing), Healthcare (Mental Health), Automotive Fast Fix

CERTIFICATION

AWS Certified AI Practitioner, Amazon Web Services

Mar 2026