RADCHANEEPORN CHANGPUN

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Portfolio | LinkedIn | GitHub

EDUCATIONS

- **M.Sc. in Computer Science** 2023 - 2025

Faculty of Engineering, Chulalongkorn University (GPA: 3.92 /4.00)
Research fields: Multiturn Chatbot from Large Language Models (LLMs)
Relevant skills: Agentic Workflow, Finetuning, RAG, Prompt Optimization
Advisor: Assoc.Prof. Peerapon Vateekul, Ph.D., Titipat Achakulvisut, Ph.D., Professor Arunya Tuicomepee, Ph.D.
Relevant courses:
Data Science and Data Engineering Tools, Computer Algorithm, Artificial Intelligence, Pattern Recognition, Natural Language Processing (NLP), Data Science Architecture, Computer Security, Research Methods in Computer Science

- **B.Sc. in Chemical Engineering** 2017 - 2021

Faculty of Science, Chulalongkorn University
Publication:
Nimmanterdwong, P.; **Changpun, R**.; Janthboon, P.; Nakrak, S.; Gao, H.; Liang, Z.; Tontiwachwuthikul, P.; Sema, T. (2021). *Applied Artificial Neural Network for Hydrogen Sulfide Solubility in Natural Gas Purification*. ACS Omega 2021, 6, 31321–31329. [Link to Paper]

WORKING EXPERIENCE

AIMET, The Center of Excellence in Digital and AI for Mental Health **July 2024 - Present**
Research Assistant

- Research and design LLM-powered chatbots for mental health support applications
- Collaborate with psychology domain experts to ensure domain alignment of AI solutions
- Lead developer team and mentor interns throughout the chatbot implementation phase

Wood PLC (Foster Wheeler) **Jan 2022 - Jan 2023**
Chemical Process Engineer

- Designed and optimized chemical processes for Thai refinery clients, improving operational efficiency

PROJECTS

- **Dmind Chatbot (Thai Multi-Turn Mental Health Support from LLMs)**
  Research and design of LLM chatbot workflows, coordination with domain experts to align with professional practices, conducting experiments for optimization, and leading research and developer teams throughout development phrase
- **Classifying Scopus publications using encoder representation from transformers language model (RoBERTa)**
  Fine-tuned a RoBERTa model with prepared Scopus publications data. The fine-tuned model achieved a significant improvement of 40.3% in the Macro F1 Score (0.6687) compared to the baseline model (0.1894) **[Link to Project]**

- **Applied Retrieval Augmented Generations (RAG) technique from Scopus data with Open-Source Large Language Models (Llama 13B)**
  Developed a RAG technique to improve the hallucination of Llama2-13B using the vector database created from Scopus publications. The RAG technique can improve hallucinations in terms of the names of publications, but there is still room for improvement in terms of authors and publication years **[Link to Project]**

SKILLS

- **Machine Learning and Deep Learning:** Predictive Models (Regression, Random Forest), Natural Language Processing (NLP), Large Language Models (Finetuning, RAG, Prompt design), Data Science, Neural Networks
- **Developer Tools**: Python, PyTorch, SQL, Autogen, HuggingFace, MATLAB, Scikit-Learn, Pandas, Matplotlib, Linux, Weights and Biases (WandB), PySpark
- **Language Score:** TOEIC 840/990 (2024), CUTEP 79/120 (2023)