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]

PROJECTS

- **Dmind Chatbot (Thai Mental Health Support from LLMs)**
Multiturn Thai mental health support chatbot integrating LLMs workflow and mental health
support knowledge, involving 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)**
I fully 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]**

- **Finetuning Thai Large Language Model (Typhoon) with Open-Source dataset**
I optimized datasets and prompts for instruction fine-tuning of Typhoon 7B using QLoRA,
improving performance. Human evaluation revealed areas for further refinement in question-
answering tasks **[Link to Project]**

- **Applied Retrieval Augmented Generations (RAG) technique from Scopus data with
Open-Source Large Language Models (Llama 13B)**
I 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)

WORKING EXPERIENCE

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

- **Technical skills:** Research skills, Computer Skills (Words, Excel)
- **Soft skills:** Foreigner Collaborations, Interdisciplinary Communication skills, Problem-Solving skills, Analytical skills