# Jakapun Tachaiya

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#### **About Me**

As a faculty member in the Linguistics Department at Chulalongkorn University, I am deeply interested in how computers can understand human language—a complex and often ambiguous task. My research focuses on Natural Language Processing (NLP), enabling computers to perform language-based tasks such as question answering, translation, and large-scale text analysis. Currently, I am developing NLP solutions using Large Language Models (LLMs), particularly for the Thai language. I welcome collaborations in this field.

### **Research Highlights**

- NLP Research: Advancing natural language understanding and generation through novel architectures and methodologies.
- Collaborations: Working with leading research institutions and industry partners globally.
- Impact: Research applied in real-world applications affecting millions of users.

#### **Research Interests**

Core Areas: Large Language Models, Retrieval-Augmented Generation (RAG), Sentiment Analysis, Social Trend and Behavior Analysis, Machine Learning

Applications: Conversational AI, Information Extraction, Text Summarization, Multilingual NLP, Educational Technology, Healthcare NLP

#### **Publications**

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- Investigating the Influence of Psychologists' Recommendations on Thai Juvenile Court Judgements (2024 JCSSE, Bangkok, Thailand)
- IKEA: Unsupervised Domain-Specific Keyword Expansion (2022 ASONAM, Istanbul, Turkey)

- SentiStance: Quantifying the Intertwined Changes of Sentiment and Stance (2021 ASONAM, The Hague, Netherlands)
- RAFFMAN: Measuring Sentiment in Online Political Forum Discussions During the Trump Impeachment (ICWSM 2020, Atlanta, Georgia)
- RThread: A Thread-Centric Analysis of Security Forums (2020 ASONAM, The Hague, Netherlands)

## **Teaching & Talks**

Teaching Experience:

- Natural Language Processing Fall 2025, ISE, Chulalongkorn
- Statistics for Digital Humanities Fall 2025, LangTech, Chulalongkorn
- Programming for NLP Fall 2025, LangTech, Chulalongkorn
- Large Language Models Spring 2025, LangTech, Chulalongkorn
- Foundation of Programming Fall 2024, KMITL
- Introduction to NLP Various semesters, KMITL
- Generative AI Fall 2024, KMITL
- Database Programming, Data Science Various semesters, KMITL
- Web Mining Fall 2022, KMITL

#### Talks:

- Generative AI for Daily Work, TISTR, April/September 2024 & April 2025
- Generative AI, EC GROUP, February 2025
- Introduction to LLMs and Generative AI, Thammasat Medical School, July 2025
- Accelerating the Machine Learning Process with LLMs, KMITL, September 2024

#### **Education**

Ph.D. in Computer Science – University of California, Riverside, 2017–2022 (Advisor: Michalis Faloutsos)

M.S. in Computer Science – University of Southern California, 2014–2016

B.E. in Computer Engineering – Chulalongkorn University, 2009–2012

# **Work History**

- Lecturer, Linguistics Department, Chulalongkorn University, 2025-Present
- Lecturer, Computer Science Department, KMITL, 2023–2025
- Research Lab Leader, UC Riverside, 2021–2022 Led NLP and data science projects, contributed to NSF-funded research
- $\bullet$  Research Assistant, Spatial Sciences Institute, USC, 2016–2017 Specialized in spatial data analysis using NoSQL

References and full publication list available upon request.