

SAKCHOTE KHEMMARACH

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EDUCATION

Chulalongkorn University Bangkok, Thailand
Bachelor of Engineering (B.Eng.), Electrical Engineering Expected Graduation: Sep 2028

RELEVANT RESEARCH & ENGINEERING EXPERIENCE

Backend Developer & DevOps Engineer Aug 2024 – Present
Chulalongkorn University Language Institute (CULI) Bangkok, Thailand

- Core developer for a university-wide automated exam checking system, directly applying principles of **education technology** and **automated assessment**.
- Designed and implemented the scalable backend architecture and integrated AI-powered algorithms (Automated Essay Scoring) to process and score large volumes of written exams.
- This practical work and its findings formed the foundation for the accepted peer-reviewed paper at **IEEE TALE 2025**.
- Implemented full DevOps lifecycle (CI/CD, Docker, monitoring) to ensure high availability and reliability for educational deployment.

SELECTED AI & EDUCATION-RELATED PROJECTS

Examee: AI-Powered Automated Exam Creation Platform

- Designed an AI platform using NLP to convert educational materials into customizable exam questions, streamlining educator workflows.
- Collaborated on integrating AI APIs for Thai language processing to support local educational needs.

CareMate: AI-Powered Healthcare Assistant

- Developed an AI-driven platform for medical diagnosis, prognosis, and coding (ICD-11, CPT), integrating robust backend systems for secure patient data processing.

Mapster: AI-Powered Mind Mapping Tool

- Built an intelligent system to generate dynamic mind maps by leveraging AI to analyze input data, summarize topics, and visualize complex ideas for learning and brainstorming.

HONORS & AWARDS

- Top 10 Finalist:** NCSA THAILAND CYBER TOP TALENT | *National Cyber Security Agency*
- 2nd Place:** NCSA CTF Boot Camp 2024 | *National Cyber Security Agency, Thailand*
- 3rd Place:** SPU AI Prompt Mini Hackathon 2024 | *Sripatum University, Thailand*
- 3rd Place:** MEDCHIC Health Data Hackathon 2024 | *Chiang Mai University, Thailand*
- Finalist:** GrabSpark Case Thailand Competition | *Grab Thailand*
- Finalist:** AI for Impact | *Google Cloud*

TECHNICAL SKILLS

- Backend:** API Development, Database Management (SQL), Security, Performance Optimization
- DevOps:** Docker, CI/CD, GitHub Actions, CodePipeline, Terraform, CloudFormation
- AI/ML:** Model Development, NLP (LLMs), Computer Vision, AI System Integration
- Cybersecurity:** Network Security, Penetration Testing, Vulnerability Assessment
- Languages:** Python, TypeScript, SQL, C++, C, Java, Lua
- Cloud:** AWS, GCP