

# Witchayut Tangwongkitsiri

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## SUMMARY

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### Bachelor's degree in electrical engineering, *Chulalongkorn University*

With academic **foundations in mathematics, control systems, and wireless communication**, as well as exposure to cybersecurity concepts. While my degree focused on communication and control systems, I developed a strong interest in **data engineering**, which led me to pursue related projects and coursework in this field.

#### Relevant coursework :

- Data Science Practicum
- AI Engineering
- Computer Programming

## EXPERIENCE

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### IOT Development Intern

Electrical Engineering Technology for Agricultural Resources (EETAR)

(June 2024 – August 2024)

- **Developed IoT-based systems** with Arduino IDE to automate agricultural tasks, collect data, and integrate with InfluxDB for real-time monitoring.

### Freelance Math Tutor

(2021 - present)

- Taught at institutions such as Mainstairs and NCU Tutoring Center
- Tutored students in mathematics (elementary to high school) through group and one-on-one sessions.

### Project

- Development Cyber Security Testbed – Mininet Wifi
  - **Development of network security testbed** for abnormal traffic data detection in cyber-attack analysis using machine learning: **Server module**
  - **Co-author** of a research paper accepted for publication in IEEE 2025 ISCIT: **“Design of Software-Defined Wireless Network for Machine Learning-Driven DDoS Detection and Tiered Response.”**  
(Project repo: [https://github.com/knotnot/senior-project\\_server-module](https://github.com/knotnot/senior-project_server-module) )
- Creating data pipeline ETL & automate
  - **Developed an ETL pipeline** in Python to extract data from the TripAdvisor API, transform and clean the data, and load it into a MySQL database running in a Docker container. **Automated the workflow** using Apache Airflow, also deployed in a separate Docker container.  
(Project repo: <https://github.com/knotnot/ETL-data-pipeline> )
- Integrating machine learning into a Flask-based web application
  - **Developed a machine learning model** using fertilizer application and weather data. **Deployed the model with Flask** to create a web interface for practical use.  
(Project repo: [https://github.com/knotnot/2603498-Project\\_DS](https://github.com/knotnot/2603498-Project_DS) )

## ADDITIONAL & SKILLS

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- **Language:** Thai (Native), English (Fluent), TOEIC score: 805/990
- **Technical Skills:** Python, GCP, AWS, Databricks, SQL, HTML, CSS, Docker container, Power BI, Ubuntu (Linux), Git, MySQL, Excel, Matlab, Apache Airflow
- **Activities:**
  - MC for Faculty Orientation Day
  - CUEE-SDG: Community Service: Electrical Repair at Rural School
- **Interests:** Movies, Board games, Cloud technologies, Investment, Tennis, AI