# Watchara Noisriphan

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### **CAREER OBJECTIVE**

My passion lies in AI engineering and conducting proof-of-concept (POC) projects to demonstrate their feasibility. I enjoy working with data, particularly with Language Models (LLMs), and developing my own models. I believe this field holds significant potential for societal impact in the future.

### **EDUCATION SUMMARY**

**Kasetsart University** 

Bangkok, Thailand

Bachelor of Science | GPA 3.74 (First-Class Honors)

Apr 2019 - Apr 2023

Major: Computer Science

### **WORK EXPERIENCE**

Amity Solutions co. ltd - Al software Data Analyst & Prompt Engineering Bangkok, Thailand Oct 2024 - Present

- **Prompt Engineering** for ChatGPT: Developed techniques to guide ChatGPT responses through **Retrieval-Augmented Generation (RAG)** with CSV files, ensuring responses align with specific requirements.
- AI-Powered Career Path Chatbot: Implemented an **AI chatbot** focused on career development, assisting employees in understanding growth pathways and self-improvement strategies.
- API Development & Testing: Built APIs using TypeScript and tested functionalities with Google Apps Script, ensuring reliable and efficient API operations.

**Unit co. ltd** - software house and infrastructure support PTG , **PTG startup Data Analyst & AI Researcher** 

Bangkok, Thailand May 2024 - Oct 2024

- Implemented message queues (SQS) to prevent data loss during operations, reducing transaction loss. Despite system downtimes, processes continued to completion. Researched Apache Kafka for larger-scale systems, solving issues and preventing financial losses exceeding 1 million THB.
- Developed a POC for **social listening** by using **Gemini 1.5 flash** to analyze video content, determining the message and activities in the video, and identifying current interests. This analysis was applied to create modern campaign topics, resulting in **improved engagement rates**.
- Created a cache system using the **lru\_cache** library to avoid redundant data queries. To enhance performance at the enterprise level, conducted a POC with Redis on Docker. This significantly reduced the frequency of redundant backend queries, **decreasing CPU server usage by up to 90%**.

**Rudy Technology co. ltd** - ERP , CRM In the construction business , **SCG startup Data Analyst & AI Researcher** 

Bangkok, Thailand Jul 2023 - May 2024

- Implemented **sentiment analysis** using the **WangchanBERTa Thai language model (LLM)**, **fine-tuning** responses based on customer requirements, and categorizing them into positive, neutral, and negative sentiments. Utilized data relevant to business to conduct fine-tuning and designed multiple models as organizational assets.
- I utilized a Language Model (LLM) for Retrieval-Augmented Generation (RAG), enabling an AI chatbot to respond with specific information extracted from various sources such as SQL, Excel, and PDF formats. This chatbot was designed to read organizational data, summarize it, and provide tailored responses to users' inquiries.

**Tamkang University** - University in Taiwan **AI Developer R&D (Internship)**  New Taipei City, Taiwan Jul 2022 - Dec 2022

- Conduct research to identify compelling AI projects that are suitable for addressing the encountered problems and analyze how they can **provide solutions**. The specific problem at hand is to assemble the **most effective rowing team**.
- Utilize Python's media pipe library to capture video data of each rower's practice sessions and calculate the angle and degree of their rowing technique.
- Apply principles of physics to determine the angular velocity of each rower in every video clip.
- Employ the Fast Fourier Transform principle to identify the rowing frequency of the athletes.
- Employ various machine learning models such as **K-Means, BIRCH, and DBSCAN** to cluster all the data, and compare the predictions made by the three models.

- Analyze machine sensor data by retrieving API data from IBM cloud storage and plotting it using Python seaborn library to observe the **behavior of the machine prior to crashing**.
- Gather machine behavior data from the five years leading up to the crash, train the data using **machine learning models** such as **linear regression and XGB**, and compare it with the current data.
- Perform an **autopipeline** by obtaining sensor data from the machine through an **API**, **ETL**, **cleaning** the data before model training, and saving the results. All of these processes are conducted within the IBM cloud environment.

## **L.P.N.Development PCL.** - Selling, renting and servicing real estate *Data Analyst (Internship)*

Bangkok, Thailand Apr 2021 - Jun 2021

- Retrieve data from company databases using **SQL** and utilize **Microsoft's SSAS framework** for data retrieval from multiple databases. Synchronize data from the database to display it on the **PowerBI dashboard**.
- Create a dashboard that showcases the participants **involved in the sale of houses**, **condos**, **and row houses** in the Lumpini project.
- Utilize **OCR techniques to extract text** from an image of a package list, convert it into digital text, and automate the process of filling in the required information.

### **SKILLS**

- Programming Languages: SQL, Python (pandas, scikit-learn, numpy, matplotlib, beautiful soup, open-cv, auto gui), NLP, Computer Vision
- Containerization: Docker , GitHub , Redis , Message Queue (SNS), Apache Kafka
- · LLM: OpenAI, Langchain, Llama, Gemini, Huggingface
- Data Visualization: PowerBI, Tableau, Looker Studio

### **ACTIVITY & REWARD**

- 2nd Place and Best of the Track Award in "Data Solution for Banks" at the National ITMX Hack to the Max
- 2nd Place in the Google Cloud Ace Hackathon Competition
- Top 16 Finalist in the Line Hackathon 2023 (Student Team)
- Microsoft Future Ready Project Participant, Thailand Representative
- 1st Data Culture Leadership Bootcamp 2022

#### **COURSE & CERTIFICATE**

- FRA Competition 2020 (Microsoft)
- SUPER AI ENGINEER SS1 (AIAT)
- AI on Cloud (SCB)
- AI Chatbot Essential (Botnoi)
- Applying Machine Learning to your Data with Google Cloud
- Google Cloud Computing Foundations: Data, ML, and AI in Google Cloud
- Generative AI Explorer Vertex AI