

# PRACHAYA KHOMDUEAN

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#### **Github**



github.com/jayprachaya

#### LinkedIn



#### Website



I am a data scientist passionate about leveraging artificial intelligence to enhance decision-making in finance and investments. My area of expertise lies in deep learning, particularly in analyzing data and image processing such as yolov8 and Vision Transformer (ViT). Currently, I'm interested in financial portfolio optimization to improve investments and learning how to apply data analytics to finance. I constantly update myself with the latest developments in the AI field.

### **EDUCATION**

## **Bachelor's Degree of Health Data Science**

Aug 2018 - Jun 2022

Princess Srisavangavadhana College of Medicine, Chulabhorn Royal Academy and King Mongkut's University of Technology Thonburi (KMUTT) | GPA of 3.42 (2nd Class Honours)

• This major focusing on the combination of the data science domain and medical knowledge, i.e. deep learning, text analytic, diseases, and precision medicine.

#### **EXPERIENCE**

## **Research Data Management Officer**

Aug 2022- Present

Chulabhorn Learning and Research Center, Bangkok, Thailand

- Researching techniques and deep learning models for a medical imaging research project.
- Analyze and clean the clinical data to support the research project.
- Process structured and unstructured data such as clinical data, CT-scans
- Create a Power BI dashboard to track the performance of the organization's research publications.
- Supporting the data management unit for ISO/IEC 27001 implementation.

## Internship

Data analyst, NextMed Co., Ltd.

Apr- May 2023

Developing a Chatbot-Powered Solution for Seamless Patient Document Retrieval by utilizing lanchain freamwork

Medical bioinformatics program, Siriraj, Mahidol University

Jun - Jul 2021

• Developing a computer vision-based image segmentation program to detect dengue virus foci in focus forming assay (FFA) with a specificity rate of 93.75%. Follow this project here: https://github.com/si-medbif/dengue\_foci

### **SKILLS**

## **Hard Skills**

- Coding with Python, SQL, HTML, CSS, Basic R
- Experience with Jupyter Notebook/Lab, Colab, Power BI, Power Automate
- Deep learning for image detection and segmentation, Yolov8, Vision Transformer
- NLP: Transformer Language Models, Sentiment analysis, Text analytics, Web scraping

#### **Soft Skills**

- Responsibility, Problem-solving, Attention to detail, Creativity, Teamwork
- TOFIC score: 655

<ul> <li>Ultra-Wideband Based human activity classification</li> <li>Developed a deep learning model for human activity classification using YOLOv8-CLS and Vision Transform</li> <li>Financial QA chatbot</li> <li>Created an information retrieval question-answering system for financial data</li> <li>Obstacle Avoidance with Reinforcement Learning for Robotics</li> <li>Developed a Q-learning algorithm for obstacle avoidance in robots and created a map for reinforcement learning simulation in Gazebo</li> <li>Liver lesion detection</li> <li>Developed a deep learning model for the detection of liver lesions, utilized YOLOv8</li> <li>Skin lesion detection</li> <li>Utilizing the Cira core to detect and categorize skin lesions as malignant or benign, then integrated with the Line API</li> </ul>	Mar 202 er Mar 202 Feb 202 Feb 202
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with the Line API	
Research publications dashboard	Oct 202
• Created a dashboard using Power BI to effectively visualize the performance of the organization and resear	rch KPIs
<ul><li>Person Activity Detection</li><li>Utilized YOLOv5 to detect human activity in a live video stream from a webcam</li></ul>	Jun - Jul 202
CSC web app Au	g 2021 - May 202
<ul> <li>Predicting precentage of infection, using semantic segmentation technique and Streamlit for prototype implementation</li> </ul>	
Dengue foci count system	Jun - Jul 202
A project aims to count numbers and measure areas of dengue foci from focus forming assay (FFA)	
ACTIVITIES	
Participated in Super AI Engineer Season 3: Level 2 (https://superai.aiat.or.th/)      Participated in Super AI Engineer Season 3: Level 1 (https://superai.aiat.or.th/)	Jan - Mar 202
<ul> <li>Participated in Super AI Engineer Season 3: Level 1 (https://superai.aiat.or.th/)</li> <li>Attendance in the competition AI Hackathon Online #1 "Covid-19 Image" for classification of Chest X-ray</li> </ul>	Oct - Dec 202 202
<ul> <li>Volunteered for The Princess Mother's Medical Volunteer Foundation at Phayao University</li> </ul>	202
<ul> <li>Attendance in the Princess Chulabhorn International Oncology Conference (PCIOC 2019) at Centara Grand Hotel &amp; Convention Centre, Bangkok, Thailand</li> </ul>	201
<ul> <li>Representative from Faculty of Medicine and Public Health in a field study at Hospital &amp; Public Health Company in Hangzhou and Shanghai, China</li> </ul>	201
CERTIFICATES	
Super AI Engineer Season 3 Examination Certificated by AIAT [credential]	Dec 202

## **INTERESTS / HOBBIES**

[credential]

- Reading publications about technology and innovation
- Stock Investment, particularly in tech companies

• BigQuery for Machine Learning [credential]

- Attending technology conferences
- Enjoy exercising regularly, with a focus on weightlifting and calisthenics

• Perform Foundational Data, ML, and AI Tasks in Google Cloud [credential]

• Good Clinical Practice: ICH GCP E6(R2) for Investigator and Trial Staff by Chulabhorn Royal Academy

Sep 2022

Apr 2022

Apr 2022