

Tanophat Wanwarothon

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#### WORK EXPERIENCE:

- Researcher Assistant, The Sirindhorn International Thai-German Graduate School of Engineering, 2023/6 - Present
  - Researching in Social network fields
  - Support lecturer in class
- Data Science, Allianz Ayudhya, 2022/5 -2023/5
  - Detected anomalies in data related to insurance claims within the company.
    - "I applied my data-driven expertise to conduct a comprehensive analysis of our claim data, with a specific emphasis on cases associated with high claim values. My responsibilities encompassed various data tasks, including querying data from databases, data cleansing, and identifying relationships and correlations across multiple sources. This involved collaborative meetings with cross-functional teams to gain deeper insights into customer behavior.
    - Using the Power BI tool, I created interactive dashboards that revealed critical data patterns and anomalies. I presented my findings to diverse teams, including Claims, Marketing, and Cost Containment, facilitating in-depth discussions and problem-solving sessions.
    - In collaboration with the Cost Containment team, we meticulously examined the cost implications of high-value claims, identified root causes, and

initiated constructive dialogues with customers to implement effective solutions

- Implemented model techniques for fraud detection in individual claims cases.

I spearheaded the implementation of advanced model techniques to detect fraudulent activities within individual claims. This initiative began with collaborative sessions with the claims team to understand the nuances of fraud detection in customer claims. I utilized SQL for data exploration and retrieval from the database. Subsequently, I employed Python for data cleaning and extraction to build a robust fraud detection model. This multifaceted model consisted of three distinct filters:

1. **Rule-Based Filter:** This filter was designed based on patterns observed in fraudulent claims.
2. **Static Filter:** It focused on static characteristics of claims to identify potential fraud.
3. **ResNet Model:** As the final layer of defense, I developed a ResNet-based model to scrutinize claims for fraudulent activity.

The culmination of this project resulted in a significant reduction in fraudulent claims, enabling the team to allocate resources more effectively and detect individuals involved in illegal activities.

- Developed a persistent model to predict the success rate of insurance policy renewals.

I led the development of a robust predictive model aimed at forecasting the success rate of insurance policy renewals, offering substantial cost savings for

our marketing efforts. The project commenced with collaborative meetings with the marketing team to understand their objectives of reducing costs associated with policy renewal outreach. To kickstart the data-driven process, I leveraged SQL for data exploration and retrieval from our database. Once we had the data, I employed Python to address missing data and unearth correlations among various features. These critical insights were then used to train a decision tree model, enabling us to predict renewal success scores effectively. The final phase involved deploying this model, facilitating seamless data transmission to the marketing team for their daily outreach efforts. This proactive approach not only reduced costs but also enhanced the efficiency of policy renewal campaigns."

- Data Engineer, KMS, 2020/9 – 2022/4
  - I expertly orchestrated the ETL (Extract, Transform, Load) processes by leveraging Alteryx in conjunction with Hadoop, ensuring the seamless flow of data into Tableau. This integrated approach empowered me to meticulously craft dynamic and interactive dashboards, delivering comprehensive insights to drive data-informed decision-making.
  - Implemented data automation processes through Cron jobs in Linux environment.
- R&D Engineer, Asahi Denso, 2017/6 – 2019/6
  - Research and Development automotive part in 3D model and 2D drawing using Catia.
  - Design and develop jig for test automotive part.
  - Worked with customer and suppliers to translate the design into prototype and product.
  - Build automation machine for testing function parts.

- Order, record and update purchasing document (PO/ PR, Etc.) into the system and database.

**Education:**

- Master of Science in Computer Science, Chulalongkorn University, Thailand, 2019-2022
- Bachelor of Engineering in Electrical Engineering, King Mongkut's University of Technology North Bangkok (KMUTNB), Thailand, 2012-2016

**Research Experience:**

- Department of Computer Engineering, Faculty of Engineering, Chulalongkorn University

Research Advisor: Asst. Prof. Sukree Sinthupinyo, Ph.D.

Text Synthesis to add example for detecting hate speech in Thai Messages

**Skills:**

- Programming Languages: Python
- Data Analysis and Visualization: Power BI, Tableau
- Database Systems: SQL
- Machine Learning and Data Mining Techniques
- Natural Language Processing
- Network Analysis and Graph Algorithms
- Strong problem-solving and analytical skills