PEERAPAT TANCHAROEN

Data scientist (Manager) at Kasikorn Asset Management

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Work experience

- Data analyst (Manager) – Kasikorn Asset Management (3M, 9Y)
  Skill: SQL, Python, Dashboard, Machine learning, Git
- Researcher (Public transportation policy) – Thailand development and research institute (TDRI) (1Y, 6M)
  Skill: Spatial data, Research methodology, Econometrics

Education background

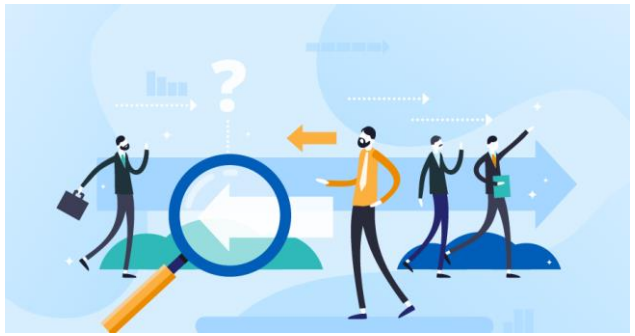
- Master's degree in Theoretical Economics from Thammasat University with a GPA of 3.97.
  Thesis titled 'Developing a Taxation System for Controlling Air Pollution from Automobile Use: A Case Study of the Bangkok Metropolitan Area', focusing on tax optimization using GAMS language, presented at the SSRU National Conference.
- Bachelor's degree in Economics from Srinakharinwirot University with GPA of 3.65 (1st Honors).
  Activity: Qualified as a top 10 team in "Economics Phetyot Mongkut" National competition.

Interest

- I am focused on leveraging data science in business contexts, particularly through developing propensity models, churn predictions, and recommendation systems to boost revenue and customer engagement.

PROJECT AT KASIKORN ASSET MANAGEMENT

Mutual funds churn prediction model



Description: Develop a predictive model to identify at-risk customers, allowing for proactive engagement and retention strategies.

Tools: *Python, SQL, Feature Engineering, Boosting, SMOTE, Threshold Tuning, SHAP*

Mutual funds customer segmentation

Description: Develop a clustering model to group investors based on behavior, enabling targeted communications and personalized product offerings.

Tools: *Python, SQL, Feature Engineering, K-Means, PCA*

AI Marketing content creator

Description: Develop AI to compelling marketing content, improving campaign effectiveness, and driving customer engagement through personalized messaging.

Tools: *Python, OpenAI API, Langchain, Streamlit*

PROJECT ON MY GITHUB

Telco churn prediction model

Tools: *Python, Boosting, Random Undersampling, Threshold Tuning, SHAP*

Banking customer segmentation

Tools: *Python, SQL, Feature Engineering, K-Means, PCA*

Hourly Energy consumption prediction

Tools: *Python, Time Series Feature Engineering, Random Forest, Recursive Forecasting*

False signal detection trading system

Tools: *Python, Financial Indicator, Trading Signal Detection*

Market basket analysis

Tools: *Python, Apriori (from scratch)*

Collaborative filtering recommendation system

Tools: *Python, Hybrid Collaborative filtering*

Thai news tag prediction

Tools: *Python, TF-IDF, Multi-label classification, Streamlit*

Document summarizer

Tools: *Python, OpenAI API, Langchain, Few-shot prompting, Streamlit*

Dynamic pricing

Tools: *Python, Pricing Elasticity of Demand (PED), Regression tree*

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THESIS PROPOSAL – DYNAMIC PRICING

- Develop a predictive pricing model that uses regression, first-degree price discrimination theory, and optimization to individually tailor prices based on consumer willingness to pay.
- Utilize regression techniques such as linear regression, regression trees, or boosting algorithms to predict price elasticity and cross elasticity, represented by the equation:

$$\%Change\ in\ Q = \%Change\ in\ P + X$$

(price elasticity) (cross elasticity)

- Maximize profit by using an optimization technique that uses predicted elasticity and includes contracts such as the cost of products

1. Transaction data

4. Profit optimization

2. Features/target extraction

5. Deploy

3. Price elasticity prediction

6. Data draft monitoring

Pricing on Point: The Art and Science of Dynamic Pricing | by Joan Ngugi | Medium
Dynamic Pricing Implementation through Data Science: Price Optimization Strategies | by Joan Ngugi | Medium
Calculating Individual Price Elasticity for Products | by Arthur Mello | Level Up Coding (gitconnected.com)
Flight Fare Prediction - 0.96 R2 score (kaggle.com)
2. Pricing Elasticity of Demand Modeling — Data Science Topics 0.0.1 documentation (oneoffcoder.com)

Q & A