## Pupipat Singkhorn

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#### **EDUCATION**

## Chulalongkorn University

2022 - Present

Bachelor of Engineering - Computer Engineering Major. GPA: 3.48

• Relevant Coursework: Pattern Recognition (Deep Learning), Natural Language Processing Systems (NLP), Algorithm & Data Structures, Database Systems, Optimization, Statistics, Signal Processing.

#### Triam Udom Suksa School

2019 - 2022

Science-Mathematics Major. GPA: 3.85

- Triam Udom Photo Club (Staff and Member) Captured photos at various school events.
- Thailand Physics Olympiad (TPhO) 19th TPhO: Bronze Medal, 18th TPhO: Participated

#### WORK EXPERIENCE

### Data Scientist Intern - Kiatnakin Phatra Bank

June 2024 - July 2024

- Used Car Price Forecasting
  - Developed ensemble machine learning models to forecast used car prices, aiding strategic decisions for automotive loan approvals.
  - Leveraged time-series analysis and Bayesian optimization techniques for enhanced accuracy.
- Loss On Sale Forecasting for NPLs
  - Built predictive models to estimate losses on Non-Performing Loans (NPLs).
  - Applied techniques like coarse classing, binning, and memory optimization to improve performance.

#### Freelance

- Physics & Mathematics Tutor Provided tutoring for Physics Olympiad camp, university admissions.
- Photographer Portfolio: instagram.com/pupick.sk Photographed various events and private sessions.

#### EXTRACURRICULAR ACTIVITIES & ACHIEVEMENTS

## Stock Return Forecasting with LSTM and Portfolio Optimization Project

April - May 2024

- Designed an LSTM-based model to predict stock returns using historical data and classical ML approaches.
- Designed and implemented quantitative trading strategies, leveraging historical data for backtesting.
- Integrated portfolio optimization techniques to maximize returns while minimizing risks.

## Investment Portfolio Analytics Dashboard Web App

November 2024

- Developed an OCR/LLM-powered system to extract and organize investment data, integrating market data.
- Leveraged Local LLM (e.g., llama3) capabilities for multimodal data processing and structured output.
- Built and deployed a dashboard to calculate performance metrics e.g., ROI, Sharpe Ratio, Volatility, CVaR.

## Aihack Thailand 2023 - AI Hackathon

December 2023

- Created a machine learning model and pipeline to forecast credit default risk.
- Performed data analysis, preprocessing, and feature engineering with linear and tree-based models.
- Awarded 1st prize and best performance (AUC) prize.

### Machine Learning for Fundraising Campaigns - SAS xCBS Hackathon Season 4 | 4th Place October 2024

• Created a 2-stage ensemble model for targeted donor outreach, improving fundraising efficiency and cost management.

#### Participation in Business Case Competitions

2023

- Hult Prize at Chulalonqkorn Developed a social enterprise idea aligned with the UN SDGs.
- Chulalongkorn Case Discovery x Ascend Money Formulated a strategy for financial services application.

## Certifications

• Machine Learning Specialization - DeepLearning.AI & Stanford University

August 2024

• Financial Engineering and Risk Management Specialization - Columbia University

November 2024

• Google Data Analytics Professional - Google

July 2023

### **MISCELLANEOUS**

# Technical Skills

Programming Languages: Python, SQL, C++, C, HTML, CSS, LaTeX, Markdown

Programming Libraries: PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib, Plotly, Streamlit

Applications: Git, GitHub, Excel, Power BI, Tableau

Languages: Thai (Native), English

Interests: Business, Economics, Politics, Books, History, Philosophy