## WARALAK PARIWATPHAN







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### **SUMMARY**

Experienced in machine learning and optimization-based tools for finance, marketing, and blockchain applications with a strong sense of responsibility and adaptability. Seeking a challenging role in a reputable and professional environment to expand my skills and knowledge. I am committed to putting in my total effort and hard work to achieve the best results and grow with the environment.

### **EDUCATION**

### Skolkovo Institute of Science and Technology (Skoltech) - Moscow, Russia

Dec 2021 - Oct 2023

Master of Science in Data Science, G.P.A. 4.58/5.00

Scholarship: H.R.H. Princess Maha Chakri Sirindhorn Skoltech Master of Science Scholarships

#### Chulalongkorn University – Thailand

Aug 2016 - May 2020

Bachelor of Science in Statistics (Insurance), G.P.A. 3.64/4.00 (1st Class Honors)

Scholarship: Chulalongkorn Alumni Scholarship

#### Princess Chulabhorn Science High Schools, Trang – Thailand

May 2012 - Mar 2015

Science-Mathematic Plan, G.P.A. 3.84/4.00



# **WORK EXPERIENCE**

#### Pornsirikul School, Trang - Thailand

Aug 2020 - Apr 2021

Mathematic Teacher

- Taught secondary students and provided guidance as an advisor for independent self-study, fostering a conducive learning environment.
- Conducted research on thinking tools and prepared reports summarizing their effectiveness in improving students' study efficiency throughout the semester.



#### Quicktoken Ltd. – Moscow, Russia

May 2022 - Jun 2022

Data Scientist Intern

- Collected and processed peer-to-peer lending data from the MakerDAO, utilizing data extraction techniques and APIs.
- Conducted analysis on the MakerDAO dataset to estimate economic parameters, providing valuable insights into the lending platform's performance.
- Implemented tokenization techniques on the MakerDAO dataset, enabling efficient representation and manipulation of data on the blockchain, and demonstrated the tokenization workflow on the blockchain.

#### AIA Group Ltd. - Thailand

Dec 2019 - Feb 2020

Actuarial Intern (Pricing)

- Developed VBA scripts to enhance the weighted average of the best estimate ratio, resulting in more accurate insurance premium calculations for group contracts.
- Analyzed claim ratios and prepared reports for the Office of Insurance Commission (OIC), providing actionable insights for improving pricing strategies.
- Conducted sample annual internal audits to ensure the accuracy and competitiveness of underwriting team pricing.

#### Ocean Life Insurance Public Company Ltd. - Thailand

Jun 2019 - Jul 2019

Actuarial Intern (Pricing)

- Created pricing tables and utilized VBA to automate pricing calculations, resulting in increased efficiency and accuracy in the pricing process.
- Developed a new product for a target market and calculated insurance premiums based on actuarial risk analysis.
- Collaborated with cross-functional teams to ensure product alignment with customer needs and strategy requirements.

#### Chulalongkorn Business Administration (CBA) - Thailand

Jun 2018 - Aug 2018

Category Executive

- Executed and implemented a comprehensive marketing strategy in the Kid, Toy, and Education category team, achieving a total revenue goal of 100,000 THB within three months.
- Communicated and negotiated with suppliers and customers to optimize product offerings and enhance profitability.
- Conducted market research and competitor analysis to identify growth opportunities and adapt marketing tactics.



# CERTIFICATES AND AWARDS

**MS Power BI for Business Analytics** 

Jun 2021

Project: Brand Awareness for 18-8-8 Fertilization

Essentials of Artificial Intelligence (AI) and Data Science for Business

May 2021

granted by Going Pro to Data Scientist Program (Faculty of Science, Prince of Songkla University)

Final Five Teams of OIC InsurTech Award 2019 granted by Office of Insurance Commission (Thailand) Sep 2019



#### **EXTRACURRICULAR ACTIVITY**

## Quick Success: Blockchain Programming (Innovation Workshop 2023) – Moscow, Russia

Sep 2023

Teaching Assistant

- Contributed to workshop materials by preparing materials, coding procedures, and deploying smart contracts.
- Worked closely with the instructor to ensure an effective and engaging learning environment.
- Provided essential student assistance through timely Q&A sessions, concise explanations, and group discussion facilitation.



#### RELEVANT COURSEWORK

#### Master's Thesis: Portfolio Sold-Out Problem in Numbers for DeFi Lending Protocols

- Collected raw data from MakerDAO, a well-known DeFi lending platform, using BigQuery and integrating with Web3 to transform unstructured data into legible data before preparing the data for the optimization stage.
- · Calculated economic parameters (e.g., PD, LGD), proved theorems regarding the second-order cone program and the NP-hard problem, performed optimization models on the dataset, and evaluated performance.

#### Task Completion in CodaLab about Deep Learning for NLP

Performed deep learning techniques to complete three tasks in CodaLab: Transliteration, Argument Mining, and RUSSE 2022 Russian Text Detoxification Based on Parallel Corpora.

#### Movie Recommendations using NeuralCF and DeepFM for Warm Start Scenario

- Applied the CoFFee model, a tensor-based approach, to retrieve important information in warm-start scenarios.
- Trained the NeuralCF and DeepFM models and combined with CoFFee's suggestions to predict the recommendations.

### **Deblurring Images Using SVD**

- Proposed a technique for recovering image information (deblurring) using singular value decomposition (SVD).
- Demonstrated the technique's performance with various levels of rank for both grayscale and color images.

#### **Boosting for Fairness-Aware Classification**

- Reproduced the AdaFair algorithm, which is based on AdaBoost, in order to obtain a fairness-aware classification.
- Applied the algorithm to evaluate the fairness performance of four datasets.

#### **Special Topics in Insurance: Reversionary Annuity for Spouse**

- Designed a joint-life insurance policy for spouses, including policy details and conditions.
- Calculated and compared insurance premiums based on the joint mortality rate for spouses using four Archimedean Copula functions.



# **SKILLS**

Language Skills: Thai (Native Speaker), English (Fluent)

Computer Skills: Python, SQL, Google Cloud Platform (BigQuery), Power BI, Solidity (basic), Linux basic command (GIT, SSH),

LATEX, Microsoft Office