

Donlapark Ponnoprat

05-394-3381 ext. 30 | donlapark.p@cmu.ac.th | [linkedin.com/in/donlapark-ponnoprat-678505100](https://www.linkedin.com/in/donlapark-ponnoprat-678505100) | github.com/donlapark

EDUCATION

University of California, San Diego San Diego, CA
PhD, Mathematics, specialized in Partial Differential Equations 2013–2018

Brown University Providence, RI
BS, Mathematics; BA, Economics 2009–2013

EXPERIENCE

Academic Researcher and Lecturer 2018 – Present
Chiang Mai University Chiang Mai, Thailand

- Developed a data labeling tool with explainable machine learning approach
- Developed a machine learning method to assist radiologists with liver cancer diagnosis from CT images
- Developed a privacy-aware method for detecting malicious behaviors in LAN data
- Studied statistical properties of k -nearest neighbors algorithms for classifications of probability distributions
- Developed a deep learning model for next-day precipitation forecasting from tabular meteorological data
- Taught several classes in statistics, optimization, graphical models and machine learning

Teaching Assistant 2013 – 2017
University of California, San Diego San Diego, CA

- Taught review sessions for undergraduate calculus, partial differential equations and real analysis
- Graded graduate real analysis homework

PROJECTS

XLabel | *Python, Streamlit* July 2022 – Present

- Developed a data labeling assistant app which uses Explainable Boosting Machine to predict the label of each instance
- Used Streamlit to design XLabel's user interface
- Designed the app to show heatmaps of the contributions of each input features towards the final predictions

Seasonally-integrated autoencoder | *Python* March 2020 – September 2020

- Developed a deep learning model for next-day precipitation forecasting
- Designed the architecture to accept both daily data and the other to accept average-pooled monthly data

Undergraduate students' projects | *Python, Flask* August 2018 – Present

- Used Latent Dirichlet Allocation for topic modeling of academic papers by their abstracts
- Deployed Thompson sampling for vocabulary learning on Line Messenger
- Used Excel Solver for minimizing variance in aviation tire supply (with Michelin)
- Developed a machine learning pipeline to classify customers' tire reports (with Michelin)
- Developed a machine learning pipeline to retrieve relevant comments from social media (with Feedback180)
- Developed an algorithm for human pose estimation with Nvidia Jetson Nano Developer K (with Feedback180)

Graduate students' projects | *Python* August 2021 – Present

- Studying the effectiveness of reinforcement learning for algorithmic trading
- Developing a deep learning model for ovary cancer detection

CONTRIBUTIONS

Pytorch Lightning: Python type checking | *Python* June 2022 – Present

- Improved typing coverage of Pytorch Lightning

Reviewer 2021 – Present

- Reviewed conference papers from: NeurIPS 2022, ICML 2022, ICLR 2022 and AISTATS 2022
 - * ICML 2022 Outstanding Reviewer (Top 10%)
- Reviewed journal papers from: Scientific Reports, ISA Transactions and Applied Soft Computing

TECHNICAL SKILLS

Languages: Python, SQL, R
Developer Tools: Git, Vim, Emacs
Libraries: NumPy, Pandas, Matplotlib, Scikit-learn, Tensorflow, PyTorch, Transformers, Flask, Cython, Streamlit