Teerapat (Ted) Chaiwachirasak

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- A graduate student in Applied Computing (ML) - looking for a position to apply cutting-edge machine learning techniques in a highly-efficient manner and gain expertise in specific fields.
- Three years of experience working on large-scale hotel recommendation systems on an online travel booking platform with millions of travel bookers and accommodation partners.
- Worked on hyper-parameter optimization, recommender systems, machine learning in a production environment, and natural language processing

Education

University of Toronto Aug 2021 - Dec 2022
Master of Science in Applied Computing (MScAC) *Toronto, ON*
- Vector AI Scholarship Recipient 2021

Sirindhorn International Institute of Technology (SIIT) Aug 2014 - May 2018
Computer Engineering - Intelligent System Track *Bangkok, TH*

Metropolia University of Applied Science Jan 2018 - May 2018
Exchange Studies in Information Technology *Helsinki, FI*

Experience

ML Applied Research Intern *Crossing Minds* May 2022 – Dec 2022
- Implemented a transfer-learning approach for Bayesian Hyperparameter Optimization to speed up the process by utilizing knowledge from historical hyperparameter tuning runs (RGPE).
- Formalized methods to extract dataset-level features which can uniquely characterize recommender datasets based on temporal-based information.

Data Scientist *Agoda Co, Ltd.* Mar 2020 – Aug 2021
- Applied machine learning, deep learning, and statistical methods on user-generated data to improve the hotel ranking system and maximize the company's number of bookings, revenues, and lifetime values.
- Improved the existing hotel recommendation system by constructing Hotel2Vec embeddings from user views behaviors using TensorFlow, resulting in a significant win on an A/B experiment with 0.74% bookings uplift.
- Applied a LISTwise ExplaiNer (LISTEN) algorithm to learn insights from hotel ranking results obtained by the deep recurrent neural network model (Bi-LSTM), of which insights were used for the team's strategic decision.

Machine Learning Engineer *Agoda Co, Ltd.* Sep 2018 - Mar 2020
- Implemented machine learning products from end-to-end, from preprocessing the training data using Spark, serving the trained models on production codebase written in Scala, and deploying the new features with in-house tools.
- Analyzed terabytes of traffic data to identify the cause of timeout errors thought to be a latency issue, restoring the ranking service's success rate to 99%.
- Set up the CI/CD process to automate docker deployment, integration test, and load test on TeamCity, tremendously shortening the deployment process which would have taken approximately 4 hours to do manually.

Data Scientist Intern *Total Access Communication Public Company Limited (dtac)* Jul 2017 - Aug 2017
- Implemented the sentiment classifier on Thai social media listening platform using Bidirectional long short-term memory (Bi-LSTM) on Word2Vec embeddings - f1-score of 0.74, 20% higher than the N-gram baseline. [GitHub]
- Coded a platform for the call-center team to label the social media comment's sentiment to solve the lack of labels.

Project/Publication

[Project] A Deeper Look into Dense Shortcut Nets (Image) [GitHub] [Report] Apr 2022

[Project] Automatic Library of Congress Classification (NLP) [GitHub] [Report] Dec 2021

[Publication] A Preliminary Study on Fundamental Thai NLP Tasks [Paper] Aug 2018

Technical Skills

Languages: Python, Scala, JavaScript (React, Node, Express), SQL
Machine Learning: Linear/Logistic Regression, K-NN, Decision Trees, Support Vector Machine (SVM), Neural Networks, Random Forests, Ensembles method (Bagging, Boosting, Stacking), K-Means Clustering, PCA
Deep Learning: MLP, CNN, RNN (LSTM, GRU), Attention Mechanism, Transformers, Word2Vec, GloVe, BERT
Python Packages: TensorFlow, PyTorch, BoTorch, NumPy, pandas, Scikit-learn, NLTK, Matplotlib, Seaborn, Plotly
Others: Nvim, JetBrains, pyenv, virtualenv, poetry, git, GitHub, Vimium, Docker