

Ted Chaiwachirasak

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Senior Machine Learning Engineer with 7+ years of experience building language-model, search, recommendation, and ranking systems in production. Experienced in post-training, evaluation, large-scale inference, and data pipelines serving millions of users.

EXPERIENCE

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| Senior Machine Learning Engineer
<i>Shopify - Sidekick</i> | Jan 2024 - Present
Toronto, ON |
| <ul style="list-style-type: none">Fine-tuned a Qwen3-32B tool-calling agent for Sidekick that generates Shopify Flow automations from natural language, running $2.2\times$ faster and at 68% lower cost than the frontier model it replaced.Built a round-trip transpiler between Flow's production DSL and Python, improving syntactic correctness by 22 points and semantic correctness by 13 points.Developed the production-data and evaluation flywheel for weekly retraining, helping close a 35% real-world quality gap in two weeks and scale the model to the majority of production traffic. | |
| Machine Learning Engineer
<i>Crossing Minds</i> | Jan 2023 - Jan 2024
Toronto, ON |
| <ul style="list-style-type: none">Increased out-of-stock product-page conversion by 3.8% with a user-guided multimodal item-embedding model using PyTorch, Transformers, ResNet, and contrastive learning.Built an LLM-powered conversational product-search system with a 29.8% search hit rate using retrieval-augmented generation and dynamic few-shot prompting.Reduced offline recommendation inference time by 82% on a catalogue of more than 15 million items through batching, Numba, PyTorch, and vectorization. | |
| Machine Learning Engineer / Data Scientist
<i>Agoda - Personalization and Hotel Ranking</i> | Sep 2018 - Aug 2021
Bangkok, TH |
| <ul style="list-style-type: none">Built personalization pipelines over more than 600 million daily events to power recommendations and tailored experiences for millions of users using Spark, Hive, and Impala.Increased bookings by 0.74% in a statistically significant A/B test with Hotel2Vec embeddings trained from user behaviour data in TensorFlow.Reduced hotel-ranking experimentation time by 75% by implementing interleaving methods for online evaluation from the ground up. | |

EDUCATION

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| University of Toronto
<i>Master of Science in Applied Computing (MScAC)</i> | Aug 2021 - Dec 2022
Toronto, ON |
| <ul style="list-style-type: none">Vector AI Scholarship Recipient 2021 [Link] | |
| Sirindhorn International Institute of Technology (SIIT)
<i>Computer Engineering - Intelligent System Track</i> | Aug 2014 - May 2018
Bangkok, TH |

PROJECT

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| Faster Hyperparameter Optimization: Meta-Learning & Multi-fidelity Optimization [Report] | May 2022 - Dec 2022 |
| A Deeper Look into Dense Shortcut Nets (Image) [GitHub] [Report] | Apr 2022 |

TECHNICAL SKILLS

Languages: Python, Scala, JavaScript, SQL, Java
Big Data: Hadoop, Spark (Scala & Python), Impala, Hive, HDFS
Google Cloud Platform (GCP): BigQuery, Logs Explorer/Analytics, Google Analytics
RecSys: Collaborative/Content-based Filtering, Matrix Factorization, Factorization Machines, Deep Learning for RecSys
Deep Learning: MLP, CNN, RNN (LSTM, GRU), Attention Mechanism, Transformers, Word2Vec, BERT, ColBERT
Python Packages: PyTorch, TensorFlow, JAX, NumPy, Numba, Pandas, Polars, Streamlit, Seaborn, Plotly, Matplotlib
Others: docker, pyenv, virtualenv, poetry, pdm, git, vim