YIK CHUN HO

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EDUCATION

The Chinese University of Hong Kong (CUHK) *Sep 2020 – Jul 2025*
Bachelor of Engineering in Financial Technology
- CGPA: 3.57 / 4.00, MAJOR GPA: 3.60 / 4.00

WORK EXPERIENCE

AI Institute of University of South Carolina (AIISC) | *Remote | Research Intern* *Feb 2025 – Present*
- Supervised by Professor Amitava Das on research about Hallucinations

CUHK | *Hong Kong | Research Student Intern* *Dec 2022 – Present*
- Supervised by Professor Hoonie Kang for language model feedback in Management Science (Start from 2022).
- Supervised by Professor Xixin Wu on the Text-To-Speech applications (Start from 2024).

Sony Corporation | *Tokyo | Research Engineer, Audio Signal Processing Intern* *Jun 2024 – Aug 2024*
- Conducting and evaluating research on latest style transfer algorithms on audio signal processing tasks.
- Developing and training diffusion models from scratch for audio signal processing with controllable image synthesis.

Thales / Hitachi Rail | *Hong Kong | Software Intern* *Sep 2023 – Jun 2024*
- Optimized passenger flow prediction via exploration data analysis, feature engineering, neural architecture search, and model ensemble, resulting in an improvement for 50% in mean-squared error and 6-fold reduction in model size.
- Explored anomaly detection and synthetic data generation for fraud detection such as NeuTral-AD and CTGAN, leading to a 3-fold reduction in computation time and better interpretability with explanation tools like SHAP/LIME.
- Implemented alarm grouping based on multi-modal embedding generations and explored most effective data preprocess and clustering algorithms using unsupervised methods.

Nvidia | *Hong Kong | Machine Learning Intern* *Jun 2023 – Aug 2023*
- Analyzed anomaly detection approach with transformer or GAN-based techniques, including TransAD and TadGAN.
- Conducted research on generative models for images, including GAN, VAE, NVAE, and diffusion model.
- Examined application for time series classification and clustering using InceptionTime and Deep Temporal Clustering.
- Explored fine tuning and information retrieval for language models, such as LoRA and LLM-Adapter.

EXTRA CURRICULAR ACTIVITIES

Deep Learning Paper Threading Group | Site: https://github.com/vinesmsuic/crisp-dl-read.git *Jun 2024 – Present*
CUHK Quant Trading Society | Head of *Quant Research* | Site: *https://www.cuqts.com/* *Jan 2023 – Sep 2024*
Amazon Web Services (AWS) | *Bar-Raiser Awardee | Student Ambassador in Team Fintech* *Jan 2023 – Sep 2023*

CERTIFICATIONS & LICENSES

Kaggle Competitions Expert *Present*
- *Achieving Expert Tier in Competitions ranked at 2293 / 205148 (Top 1%) among all competitors.*

NVIDIA Deep Learning Institute *July 2023*
- *Building Real-Time Video AI Applications, Accelerating End-to-End Data Science Workflows, Getting Started with Deep Learning, Fundamentals of Accelerated Computing with CUDA Python*

PAPER / PROJECT EXPERIENCE

Conference Paper Under Review | Natural Language Processing | Deep Learning
- Survey Papers on the Cross-Modality Knowledge Distillation in PAKDD currently under review.
- Long-Term time series forecasting for stock price with TimeMachine and PatchTST
- Deploying GraphRAG to integrate organizational applications such as Notion, Slack, and Google Drive with Neo4j

PROGRAMMING SKILLS & ADDITIONAL INFORMATION

Programming Languages: C, C++, Python, SQL, Julia, CSS, JavaScript, TypeScript, VBA
Languages: Cantonese (Native), Mandarin (Fluent), English (Fluent)
Cloud Usage: NVIDIA CUDA, DeepStream, TAO, TensorRT; AWS S3, boto-3, DynamoDB, EC2, Sage Maker
Interested Research: Time Series, Video Diffusion, Computer Vision, Large Language Model, Audio Signal Processing