yw2698@cornell.edu

**EDUCATION** 

Cornell University, College of Engineering, Ithaca, NY

Master of Engineering in Financial Engineering, GPA: N/A

**Expected December 2025** 

cell: (607)339-8113

Hong Kong University of Science and Technology, Hong Kong

Bachelor of Science, Double Major in Mathematics & Data Science and Technology, GPA: 3.74

**June 2024** 

Honors: Dean's List (2020-2023); University Scholarship for Continuing Undergraduate Students for top 5% (2020-2024)

Exchange Program at École Polytechnique Fédérale de Lausanne, Switzerland (2023) GPA: 5.75/6

Selected Coursework: Probability, Statistics, Stochastic Model, Time Series, Convex Optimization, Machine Learning, Reinforcement Learning, Design & Analysis of Algorithms, Database Management System

#### **SKILLS**

Technical: Python, C++, R, SQL, DBMS, Tableau

### **EXPERIENCE**

Quantitative Research Intern, Guolian Fund Management, Beijing, China

June to Aug. 2024

- Designed and optimized multi-objective, multi-model machine learning enhanced index strategies
- Researched and synthesized 500+ high-frequency and fundamental factors using GBDT models for CSI 300 stocks
- Constructed a LightGBM+GRU model, integrating high-frequency factors with GRU and fundamental factors with LightGBM, enhanced by linear modeling and attention mechanisms
- Conducted rigorous backtesting with rolling training, resulting in a rank IC of 9.7% and an annualized alpha of 16.08%, outperforming the CSI 300 benchmark

Quantitative Research Intern, Sealand Securities, Shanghai, China

June to Aug. 2023

- Built transferrable pipeline and code modules of GA-LSTM model, using genetic algorithm to learn topology of the LSTM network for enhanced time series forecasting, which achieved significant improvement in accuracy
- Developed algorithms to harmonize and integrate data from various APIs into a unified database, enabling consistent and reliable alpha factor extraction

Data Science Intern, Aspex Management (Alternative Strategy Hedge Fund), Hong Kong

June to Sep. 2022

- Tracked and quantified alternative data sources, establishing reliability standards and confidence intervals for integrity
- Developed predictive models from quantified data and formulate strategic insights to the investment team
- Build a regression model to assess the impact of financing maintenance rates on Taiwan Market using 20 years of data Analyzed stock performance under low maintenance rates, formulating and testing hypotheses

### **PROJECTS**

Systematic Evaluation of Flat Minimizers in Multi-Domain Learning Tasks , HKUST, Hong Kong Se

Sep. to Dec. 2023

- Evaluated geometric properties and generalization abilities of two popular flat minimizers, SWA and SAM
- Systematically compared SWA, SAM, and averaged SAM across tasks in computer vision, NLP, and graph representation learning, demonstrating the benefits of weight-averaged SAM for improved performance

# Reinforcement Learning modeling Mammalian Brain in Exploring New Environment

EPFL Laboratory of Computational Neuroscience, Lausanne, Switzerland

Feb. to July 2023

- Designed kernel functions for continuous novelty signals in model-based and model-free reinforcement learning, analyzing shifts in efficiency and behavioral biases
- Compared model behaviors with mice behaviors when exploring mazes to infer the mammalian brain's internal spatial representation signals and their impact on exploration

# Deep Learning in Natural Language Processing on Financial Fraud Detection, HKUST, Hong Kong Sep. to Dec. 2022

- Fine-tuned FinBERT for financial fraud detection in Hong Kong market, outperforming than other NLP models
- Built and maintained a comprehensive database of 20 years of fraud data, extracted from HKEX announcements and corresponding company reports, for model training and analysis

#### **LEADERSHIPS & INTERESTS**

- Captain of Jinfan Dance Team; Volunteer of Engineers Without Borders Hong Kong
- Interests: Snowboarding, Dancing, Surfing, Swimming, Poker