Wang Hanwei

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Education

The Chinese University of Hong Kong (CUHK), HongKong, China Aug. 2024 – Oct. 2025

M.Sc. in mathematics, Big Data Analytics and Computations Stream

- Majors: Financial Analytics, Econometric Principles and Data Analysis, Probability and Stochastic Analysis, Artificial Intelligence, Computational Mathematics.

Shantou University (STU), Shantou, China Sept. 2020 – June. 2024

B.S. in Mathematics and Applied Mathematics

- GPA and Ranking: 3.6/5.0 (top 3.75%)

Professional Experience

Meituan Hong Kong, Hong Kong SAR Apr. 2025 – July. 2025

Business Analytics Intern On-site

- Built business dashboards (new merchant sign-ups, GMV, conversion) with real-time KPI monitoring; enabled daily/weekly business reviews and anomaly alerts.
- Performed data cleaning and aggregation in SQL (CTEs, window functions, partition/index tuning), reducing latency of core reports by 35%.
- Conducted product association and bundling analysis (Apriori, Pearson correlation, PCA, cosine similarity); launched cross-sell recommendations that increased GMV by 17% WoW.
- Designed and executed A/B tests to measure the impact of promotions (full-cut, percentage discount, discounted dishes, single-serve offers) across campaign cycles on GMV; quantified lift, controlled for seasonality, and provided rollout recommendations.

China CITIC Bank Shenzhen, China Oct. 2024 – Nov. 2024

Corporate Business Intern On-site

- Consolidated 12M+ lending and transaction records with Python + SQL to build a reusable data mart; ran K-Means and hierarchical clustering to profile HNW, growth, and churn-risk cohorts, surfacing a 12% high-value segment.
- Designed and deployed an XGBoost credit risk model (AUC = 0.92) with SHAP-based interpretability and ROC-driven tiered thresholds, producing 200+ pre- and post-lending alerts per month.
- Instrumented retention/acquisition metrics in Tableau with funnel and geo heatmaps so marketing could tune pricing and perks; the targeted campaigns lifted qualified leads by 15% within a quarter.

Shenzhen Diankuan Network Technology Co., Ltd. Shenzhen, China May. 2022 – Sept. 2022

Quantitative Data Analyst Intern

- Led Python-based multi-factor research (momentum/value/liquidity factors scored by IC/IR) and built portfolios via rolling regressions and covariance matrices, boosting annualized returns 15.3% vs. baseline across 12-month backtests and 6-month live trades.
- Ran ADF tests, Granger causality, and PCA on 40+ market factors with NumPy/Pandas, visualizing residuals and distributions in Matplotlib; achieved 54.1% out-of-sample win rate while keeping turnover at 0.85/day.
- Built an automated feature-generation and monitoring pipeline with Z-score drift checks, CUSUM alerts, and daily health dashboards, keeping data availability at 99.9%.

Data Science Projects

Reinforcement Learning for Bitcoin Trading with Technical Indicators Feb. 2025 – May. 2025
Research Project led by Benny HON

- Developed a customized Bitcoin trading environment integrating multiple technical indicators (MACD, RSI, RVI, Bollinger Bands) to enrich agent state representation and enable market perception.
- Implemented and trained three reinforcement learning agents (Q-Learning, DQN, A2C) and benchmarked them across 1,000 simulated trading sessions.
- Evaluated agents across four key metrics total profits, training efficiency, consistency, and volatility handling. Results showed DQN as optimal for stable returns, A2C for high-risk high-return scenarios, with Q-Learning requiring stability improvements.
- Applied reinforcement learning methodologies to algorithmic trading, providing insights for strategy selection based on different market conditions and risk tolerance levels.

AI-Driven Mouse Product Design with Aesthetic Needs Recognition Sept. 2024 – Jun. 2025
Technical Developer Research Project

- Implemented Stable Diffusion models for automated generation of diverse mouse design samples, creating 1000+ design variations to support user preference analysis.
- Developed a multidimensional measurement framework using CLIP and image segmentation techniques to quantitatively analyze emotion expression and form composition of design specifications.
- Built clustering-based filtering algorithms to optimize design sample selection based on aesthetic needs, improving user preference assessment efficiency by 60%.
- Integrated diffusion models with aesthetic evaluation pipelines, bridging user perception analysis and AI-driven conceptual design for enhanced product development workflows.

Digital Intelligence Service Project May. 2023 – Sept. 2023
Technical Team Leader University Projects

- Developed Python web scrapers to collect and process large-scale text data from live streaming platforms.
- Implemented and fine-tuned NLP models based on ChatGPT for automated response generation.
- Built data processing pipeline handling 10,000+ daily user interactions with 95% accuracy.

New Countryside of Digital Wisdom Project Sept. 2022 – Sept. 2023
Data Science Team Leader Provincial Projects

- Led the development of computer vision models for safety monitoring using PyTorch and OpenCV.
- Implemented real-time video analytics pipeline processing 1000+ hours of footage.
- Achieved 92% accuracy in anomaly detection through model optimization and feature engineering.

Technical Skills

- Data Analysis: Statistical Analysis, Data Mining, Machine Learning, Deep Learning, Time Series Analysis
- Programming: Python (NumPy, Pandas, Scikit-learn), R (tidyverse, ggplot2), SQL, MATLAB
- Data Visualization: Tableau, Power BI, Matplotlib, Seaborn
- Languages: English (Business Level), Mandarin (Native), Cantonese (Fluent)

Academic Publications

Conference Paper Presentation of CVCI 2024, Bangkok, Thailand Jan. 29 - Jan. 31, 2024
International Conference on Computer Vision and Computational Intelligence (CVCI 2024).

Paper Presentation in ICAISC, Paris, France Aug. 25 - Aug. 26, 2023
*CHEN X. LIU X.,LAO X., KUAN S., JIANG Y.,**WANG H.**(2023), The Twin Terminal of Pedestrian Trajectory Based on City Intelligent Model (CIM) 4.0.International Conference on Artificial Intelligence and Soft Computing (ICAISC 2023).*