

WEI Jingxuan (Vincent) 魏靖軒

Target: FinTech / Banking Middle & Back Office (Data, Risk & Operations)

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LANG-eligible on graduation - no work-visa sponsorship required

PROFILE

Mathematics postgraduate at CUHK (QS 18) with internships in quantitative research, bank technology risk and control, and insurance finance. Hands-on with Python, Spark/Hadoop and machine-learning modelling, with two IEEE first-author papers; seeking a graduate role in banking middle/back office or fintech.

EDUCATION

The Chinese University of Hong Kong (QS 18)

Sep 2026 - Jul 2027 (expected)

MSc in Mathematics

- Relevant courses: Computational Mathematics, Machine Learning, Game Theory, Financial Analysis, Stochastic Analysis.

Harvard University (Extension School)

Jul - Aug 2024

Innovation Management & Decision Thinking, Summer Programme

- Grade: A.

Nanjing University of Information Science and Technology (Double First-Class)

Sep 2022 - Jun 2026

BSc in Information & Computing Science, School of Mathematics & Statistics

- GPA 87.22/100, ranked 2/47 (top 4%).
- Core courses: Mathematical Analysis, Advanced Algebra, Probability & Statistics, ODEs/PDEs, Mathematical Modelling, Data Structures & Algorithms.

PROFESSIONAL EXPERIENCE

Generali China Life Insurance Co., Ltd. (Jiangsu Branch)

Dec 2025 - Feb 2026

Finance Intern

- Independently handled daily bookkeeping and voucher filing - processed 1,200+ accounting vouchers and 800+ invoices/receipts, keeping ledgers, vouchers and physical records reconciled.
- Reviewed 600+ expense claims against the reimbursement policy, identified and returned 30+ non-compliant claims, and issued a standardised review checklist for the team.
- Supported 3 monthly closings and financial-statement preparation; built reconciliation workbooks in Excel (PivotTables) and investigated 50+ general-ledger vs sub-ledger variances.

OCBC Bank - China Head Office

Jun - Sep 2025

Intern, Operations & Technology

- Processed daily IT operation logs covering ~1,000 servers across Singapore and Malaysia, triaging 10,000+ raw entries per day into a few hundred items requiring review.
- Reviewed 300+ change requests (CHG) per month against approved scope and maintenance windows, flagged unauthorised changes and tracked remediation to closure.
- Monitored 200+ high-risk CVEs against internal remediation SLAs and chased responsible teams until closure.
- Performed 60+ server configuration baseline checks against the bank's ITMP policy, documented deviations and drove remediation to support IT internal control.

Chengdu Zhengfu Institute of Financial Engineering

Jan - Mar 2025

Quantitative Research Intern

- Independently researched a multi-factor timing strategy, coding and backtesting Bollinger Band, ADX and EMA signal rules and documenting the results as a research report.
- Engineered 14 groups of technical-indicator features and built a Stacking ensemble (XGBoost, LightGBM, Random Forest, LSTM) with decision-threshold optimisation.
- Ran two-layer grid search over Bollinger period and standard-deviation multiples, and used K-means clustering of SuperTrend factor performance to support dynamic parameter updates.
- Built a KNN classification strategy on multi-dimensional technical indicators (Manhattan distance) and backtested it on 20,000 five-minute steel-rebar bars.

RESEARCH & PUBLICATIONS

- The Study of Network Connectivity and Traffic Impact Based on Random Walk Algorithm and Monte Carlo Simulation - ICAACE 2025 (IEEE) - sole first author, EI-indexed. DOI: 10.1109/ICAACE65325.2025.11019500
- Heterogeneous Ensemble Learning Model for Time Series Processing Based on Multi-Dimensional Indicator Feature Engineering - AINIT 2025 (IEEE) - sole first author, EI-indexed. DOI: 10.1109/AINIT65432.2025.11035042

PROJECTS

TalentLink - Web3 & AI Talent Community for Knowledge Workers (Student Innovation Programme)

Jun 2025 - Mar 2026

Team member

- Owned blockchain mechanism design and deployment: tested contracts on Sepolia and deployed to the Polygon network.
- Designed three smart-contract modules (task management, reputation management, asset settlement) on the ERC-20 standard to automate contracting, delivery and settlement.
- Contributed to six AI agents (recruitment matching, reputation scoring, contract management) using few-shot fine-tuning and a knowledge base to improve matching accuracy.

Weather Big-Data Analytics on Hadoop

Apr - Jun 2025

Project lead

- Deployed a multi-node Hadoop cluster (HDFS + YARN) and cleaned/aggregated 19-field weather data with MapReduce.
- Designed an HBase time-series row key (stationId#date#hour) with separate info and measurement column families, enabling second-level retrieval and historical look-back through prefix scans.
- Wrapped query and aggregation services in Spring Boot, visualised annual trends with Chart.js, and deployed the full stack with Docker Compose and ZooKeeper coordination.
- Implemented SARIMA-based forecasting and built a cluster dashboard tracking regions, live nodes and average load.

E-commerce User Behaviour Analytics on Spark

Nov 2024 - Jan 2025

Team member

- Cleaned and aggregated ~2 million user-behaviour records with Spark RDD and DataFrame APIs.
- Delivered multi-dimensional aggregation and conversion-funnel analysis across five stages (browse, add-to-cart, checkout) to locate the main drop-off points.
- Reduced shuffle overhead by ~30% using broadcast variables and partitioning; built a user-item click matrix with CoordinateMatrix for collaborative-filtering recommendations.

Truck-Logistics Network Optimisation (Student Innovation Programme)

Sep 2023 - Jun 2024

Project lead

- Led a four-person cross-disciplinary team; built a site-selection and cost model from the coordinates of 764 dealerships.
- Set a 200 km coverage radius with simulated annealing and selected seven secondary distribution hubs (including Huzhou and Nanjing) via a greedy algorithm to reach full coverage.
- Scraped freight-rate data with EasySpider, extracted keyword features with ChatGLM and built a Random Forest freight-rate model tuned by random search.
- Built a road-versus-rail cost model (RMB 1.8/km by road against RMB 1.0/km by rail plus delay cost) to quantify the saving from multi-modal transport.

BSc Dissertation: Data-Driven Solutions and Parameter Discovery for the Matrix mKdV System

Jan - Jun 2026

Independent

- Built a two-input/two-output PINNs framework with differentiated modelling strategies for dark-bright, breather and third-order pole soliton solutions.
- Introduced Fourier feature mapping, structure-aware dense sampling and weighted losses to improve reconstruction in oscillatory and high-gradient regions.
- Cut the relative L2 reconstruction error to 7.4×10^{-4} under limited observations and recovered system parameters (λ_1 and λ_2) to 10^{-3} accuracy.

AWARDS

- Meritorious Winner, 2025 Mathematical Contest in Modeling (MCM/ICM)
- Second Prize, 2024 Asia-Pacific Mathematical Contest in Modeling (APMCM)
- First Prize, 21st "May Day" National Collegiate Mathematical Modelling Competition
- Second Prize (East China Region), 2025 China Collegiate Computing Contest - AIGC Innovation Challenge
- National Merit Award, 2024 China Collegiate Computing Contest - AIGC Innovation Challenge
- First-Class University Scholarship; Outstanding Student Leader; Merit Student

SKILLS & CERTIFICATIONS

- **Programming:** Python, Java, MATLAB, Solidity
- **Data & platforms:** Hadoop (HDFS/YARN), HBase, Spark (RDD/DataFrame), Docker, Maven
- **Certifications:** Fund Practitioner Qualification (passed); NCRE Level 2 - Python; CET-4 and CET-6
- **Languages:** English (IELTS 6.5), Mandarin (native)