



Dingcheng Zhao, Andy

Address: Hong Kong Island, Hong Kong
Phone: (852) 53948587
Email: shredry1@gmail.com / sh0redry@connect.hku.hk
Website: <https://sh0redry.github.io/>

SUMMARY

Computer Science undergraduate at The University of Hong Kong, pursuing a second major in Finance (CGPA: 3.73/4.30). Recipient of the Dean's Honour List and the C. V. Starr Scholarship. Interested in machine learning, data science, and optimization, with hands-on experience in end-to-end data pipelines, feature engineering, time-series validation, model development, and AWS deployment. Also bring experience in financial markets, Web3 projects, and student leadership serving over 1,500 participants. Seeking opportunities in ML engineering, data science, optimization, and FinTech.

PROFESSIONAL & LEADERSHIP EXPERIENCE

Financial Intern | CITIC Securities, Branch Office

Jun 2025 – Jul 2025

Assisted with day-to-day branch operations and developed an understanding of domestic financial-market operations. Gained exposure to different financial products and their operating principles, as well as practical knowledge of asset allocation and financial markets.

Data Science Intern | Oxbridge Economics (Hong Kong)

Jun 2026 – Sep 2026

- Conducted end-to-end machine-learning research and development for Annual Bluegrass Weevil (ABW) lifecycle forecasting. Deeply involved in historical-observation and weather-data governance, feature engineering, model iteration, time-series backtesting, error diagnosis, and AWS cloud production deployment.
- Refactored legacy experimental code into a configuration-driven, trainable, backtestable, and reproducible ML pipeline. Advanced the production solution from a Random Forest baseline to version 2.4, combining LightGBM with Ridge-based termination calibration. Also produced a technical white paper, model workflow diagrams, and business presentation materials, gaining end-to-end experience from data analysis and algorithm development to engineering delivery.

AI Model Engineer Intern | Huawei Technologies Beijing Research Institute

Jun 2026 – Sep 2026

- Worked in the Cloud Software R&D Department on AI applications related to optimization algorithms. Developed, tested, tuned, and deployed optimization algorithms according to customer requirements and optimization objectives.
- Applied multidimensional feature engineering and clustering for dimensionality reduction, significantly improving solver speed. Developed heuristic methods including Greedy algorithms, Local Search (LS), and Adaptive Large Neighborhood Search (ALNS), and applied entropy weighting to transform multi-period problems into weighted single-period formulations.
- Created example code for an AI-solver coding agent to standardize API usage. Conducted industry research on CP and SMT solvers, competitor APIs and constraint conventions, and commercial solver development and business models, helping identify priority directions for future solver development. Participated in the development of an agent for LLM-driven code generation

EDUCATION & STUDY PROGRAMS

Bachelor of Engineering in Computer Science

Sep 2024-Jun 2028

The University of Hong Kong. Second Major in Finance | CGPA: 3.73/4.30

Awards:

- Dean's Honour List, Academic Year 2024–2025
- C. V. Starr Scholarship, Academic Year 2025–2026

Selected Coursework: Microeconomics (A+), Programming Fundamentals (A+), Linear Algebra and Probability (A+), Calculus and Differential Equations (A), Discrete Mathematics (A+), Financial Data Statistics (A+), Introduction to Machine Learning (A), Computer Organization (A), Corporate Finance (A+), Introduction to Marketing (A), Data Structures and Algorithms, Modern Web Engineering, and Distributed Ledger and Blockchain.

Tsinghua University Summer Program (Zijing Scholar)

Tsinghua University, Aug 2023

Peking University Summer School International, PKUSSI

Peking University, Jul 2025

WAY Winter Visiting Program

Yonsei University, Jan 2026

National University of Singapore - HKUWW Exchange Program

Jan 2027 – Jun 2027

PROJECT EXPERIENCE

Web 3.0 Quantitative Trading Bot | HackerU Trading

Lead Strategy Development & Data Feature Engineering

NumPy, Pandas, scikit-learn, LightGBM, XGBoost

- Developed an automated market-data acquisition system based on **online APIs** and constructed **order-flow-driven machine-learning features**. Designed and implemented a feature-engineering module for high-frequency and medium-frequency quantitative strategies using raw OHLCV and active buy/sell volume data.
- Introduced order-flow and market-microstructure features, including active buy/sell ratio, order-flow imbalance, rolling cumulative net active buys, and volume intensity, to capture short-term shifts in relative buying and selling pressure. Applied rolling-window alignment and future-data isolation to reduce information leakage. Added advanced institutional-style factors, including **VWAP deviation, order-flow acceleration, return Z-scores, and wick extremity ratios, improving adaptability across trend continuation, mean reversion, and extreme-volatility market regimes**.
- Built a dual-model ensemble based on **LightGBM and XGBoost**. Designed a multi-layer trading funnel and dynamic position-management framework incorporating sector constraints across meme, L1, and AI assets; BTC-trend switches; RSI overbought filters; ATR-volatility thresholds; expected net-return ("Edge") ranking; consecutive-loss cooldowns; and gap handling.
- Implemented ATR-based adaptive stop-loss and take-profit rules at 2.0–2.8x ATR, together with forced liquidation after a maximum 12-bar holding period to limit losses from trend reversals. Used multithreaded historical-data retrieval and caching, supporting flexible rolling training with daily automatic retraining.

WeevilTrack Turf Pest Phenology Forecasting System

Machine Learning / Data Science Intern

Python, Pandas, NumPy, LightGBM, scikit-learn, SHAP, GeoPandas, Redshift, AWS S3, Poetry, Jupyter, Pytest

- Led the refactoring and maintenance of WeevilTrack's core ML workflow. Consolidated **data processing, feature engineering, model training, prediction, backtesting, and evaluation into a standardized configuration-driven pipeline**, while improving Poetry environment management, automated testing, and AWS S3 model management.
- Upgraded the model from Random Forest to LightGBM. **Introduced signed-time targets**, growing degree days/cooling degree days (GDD/CDD), rolling weather features, monotonic constraints, and post-event training samples, substantially improving trajectory rebound behavior and delayed-reset issues after pest events.
- Designed a two-layer architecture **combining LightGBM base forecasts with Ridge termination calibration** to determine pest-event dates from out-of-sample time-series trajectories. In controlled backtests covering 228 historical trajectories and 10,999 forecast records, reduced MAE from 8.35 to 4.73 days and RMSE from 12.00 to 6.67 days; improved the within-five-day hit rate from 48.6% to 69.2%.
- Built rolling time-series backtesting and model-diagnostics workflows covering 2022–2025, using **feature ablation, SHAP, partial-dependence plots, and cross-region holdout experiments** to analyze model errors. Finalized frozen dual-model configurations and an S3 versioned-release plan for the 2027 model version, supporting daily incremental forecasts and safe rollbacks.

HKU AGENTS | Agentic Knowledge and Campus Assistant

Agent Architecture & Full-Stack Development

Python, LangGraph, Qdrant, BM25, FastAPI, Gradio, Chrome Extension, TypeScript, Pydantic, Deepseek Harness

- Built an HKU-focused Agentic **RAG system** that ingests official sources and combines parent-child chunking with Qdrant dense retrieval and BM25. Added bilingual clarification, evidence-backed answers, and support for multiple LLM providers.
- Architected a local-first campus agent platform and built a **TypeScript DeepSeek Harness plugin** that exposes SIS, Moodle, Portal, and Library capabilities as typed tools through a versioned FastAPI interface. A restricted Chrome Bridge reuses authenticated sessions while fixed routes, domain allowlists, and sanitized parsing protect credentials and private page data.
- Designed a controlled Library booking flow with exact-slot previews, explicit confirmation, one-shot execution, policy checks, and post-submit verification. Live acceptance is complete for the read-only workflows; supervised booking is implemented locally and awaits full live acceptance.

ADDITIONAL INFORMATION

- **Programming & Engineering:** Python, C/C++, Java; Linux and Bash Shell development and debugging; Git, Conda, Docker, WSL2, and Poetry for code management, environment configuration, testing, and deployment.
- **Data Science & Machine Learning:** NumPy, Pandas, SQL, Matplotlib, scikit-learn, LightGBM, XGBoost, PyTorch, and SHAP. Able to independently conduct data cleaning, feature engineering, model training, time-series backtesting, error diagnosis, and visualization.
- **ML Engineering & AI Tools:** Configuration-driven pipelines, automated testing, model version management, AWS S3, and Redshift for cloud data and model management. Familiar with Agents, RAG, LangChain, and prompt engineering; able to use Claude Code and Codex to improve development efficiency.
- **Web & Web3:** HTML, CSS, JavaScript; Solidity, Hardhat, OpenZeppelin, and Chainlink. Experience in smart-contract development, risk-pricing logic, and testing.
- **Optimization:** Practical experience with Greedy algorithms, Local Search, ALNS, clustering, and entropy weighting; familiar with CP and SMT solver applications and ecosystem.
- **Finance:** Second major in Finance, with foundations in economics, corporate finance, financial markets, and asset allocation.
- **Languages:** Mandarin (native), English (IELTS 7.0), Cantonese (basic).

APPENDIX: CERTIFICATES



2025-01-540

Certificate of Completion

This is to certify that

Dingcheng Zhao

has completed the *Winter Abroad at Yonsei*
hosted by the Office of International Affairs, Yonsei University

Given this on the 16th day of January, 2026



Yong-Chan Kim, Ph.D.
Vice President for International Affairs



Dong-Sup Yoon, M.D., Ph.D.
President



YONSEI UNIVERSITY



学生成绩单 (电子版)
Student's Academic Transcript (E-file)

赵汀城 ZHAO, DINGCHENG

项目Program: 暑期学校 Summer School
学号Student ID: 2502055421
性别Gender: 男 Male
出生日期Date of Birth: 03/23/2006
学生类型Student Type: Non-degree student

课程 Course Title	学时 Hours	学分 Credits	成绩 Grades
24-25/3 学期 term 本土视野下的中国外交与国际事务 Chinese Perspective on International and Global Affairs	50	3	86
----以下空白The End of Records----			



北京大学教务部
Office of Educational Administration
Peking University

注Note:

成绩等级 Grading System: A+(95-100), A(90-94), A-(85-89), B+(81-84), B(78-80), B-(75-77), C+(72-74), C(68-71), C-(64-67), D(60-63), F(<60), D+ (P Pass), I (Incomplete), IP (In Progress), F (Fail).

学分 Credit: 北京大学一个学分相当于15个讲座课时, 或相当于30-45个实验研究学时。
One academic credit is equivalent of fifteen lecture hours or thirty to forty-five laboratory hours.

学期: 第一学期从每年的九月份到次年的二月份, 第二学期从二月份开始, 到六月份结束。第三学期表示暑期学校。
The term one starts in September and ends in January of the following year, while the term two begins in February and ends in June. The term three means summer school.

北京市海淀区颐和园路5号 Peking University, Beijing 100871, P.R.China

IELTS™

Test Report Form

ACADEMIC

NOTE Admission to undergraduate and post graduate courses should be based on the ACADEMIC Reading and Writing Modules. GENERAL TRAINING Reading and Writing Modules are not designed to test the full range of language skills required for academic purposes. It is recommended that the candidate's language ability as indicated in this Test Report Form be re-assessed after two years from the date of the test. To find out more about IELTS, IELTS band scores and the CEFR levels, please visit ielts.org/scores

Centre Number HK022 Date 29/MAY/2025 Candidate Number 500172

Candidate Details

Family Name

ZHAO

First Name(s)

DINGCHENG

Candidate ID

F5813383

Date of Birth

23/03/2006

Sex (M/F)

M

Scheme Code

Private Candidate

Country or Region of Origin

Country of Nationality

HONG KONG

First Language

CHINESE



Test Results

Listening 7.0 Reading 8.0 Writing 6.0 Speaking 6.0 Overall Band Score 7.0 CEFR Level C1

Administrator Comments

Recognising organisations must verify this score at ielts.org/verify

Validation stamp



Date 30/05/2025 Test Report Form Number 25HK500172ZHAD022A



CAMBRIDGE
English

IELTS is jointly owned by the British Council; IDP IELTS; and Cambridge University Press & Assessment

Certificate of Completion

华为云
AI范儿

结业证书

赵玢城 50061339 同学

兹祝贺您圆满完成华为云 AI 范儿 · 2027 届勇敢星实习生研学营全部课程，准予结业，

特发此证，以资纪念。

愿您永葆探索热忱，驰骋数智山海、解锁无限可能。

期待未来与您云端并肩，共启AI时代新篇！

华为云计算BU
2026年8月

荣誉证书

赵玢城同学

在2023年清华大学暑期学校中被评为

紫荆学员

特发此证，以资鼓励。

清华大学暑期学校
2023年8月4日

APPENDIX: TRANSCRIPT

THE UNIVERSITY OF HONG KONG

Unofficial Transcript of Academic Record - Student Copy

(The results in the unofficial transcript are for reference only and should not be taken as official certification.)

Name & Student ID

Official Name:

Zhao Dingcheng

3036292283

Personal Information

Name Prefix:

Mr.

Date of Birth:

March 23, XXXX

HKID Number:

F5XXX38(3)

Academic Program / Plan Information

Academic Career:

Undergraduate Career

Academic Program:

BEng(CompSc)

Level:

Year 3

Curriculum Major

BEng(CompSc)
Finance

Awards / Scholarships

2024-2025

Dean's Honours List

2025-2026

C.V. Starr Scholarships

Course History						
** To be released Taken Transferred In Progress						
Course	Course Title	Term	Grade	Units	Status	Academic Program
CCST 9017	Hidden Order in Daily Life: A Mathematical Perspective	2024-25 Sem 1	B+	6,00		BEng
ECON 1210	Introductory microeconomics	2024-25 Sem 1	A+	6,00		BEng
ENGG 1300	Fundamental mechanics	2024-25 Sem 1	A	6,00		BEng
ENGG 1330	Computer programming I	2024-25 Sem 1	A	6,00		BEng
MATH 1851	Calculus and ordinary differential equations	2024-25 Sem 1	A	6,00		BEng
ACCT 1101	Introduction to financial accounting	2024-25 Sem 2	A-	6,00		BEng
CAES 1000	Core University English	2024-25 Sem 2	B	6,00		BEng
ECON 1220	Introductory macroeconomics	2024-25 Sem 2	A-	6,00		BEng
ENGG 1310	Electricity and electronics	2024-25 Sem 2	A	6,00		BEng
ENGG 1340	Computer programming II	2024-25 Sem 2	A+	6,00		BEng
MATH 1853	Linear algebra, probability and statistics	2024-25 Sem 2	A+	6,00		BEng
COMP 2119	Introduction to data structures and algorithms	2025-26 Sem 1	B-	6,00		BEng(CompSc)
COMP 2121	Discrete mathematics	2025-26 Sem 1	A+	6,00		BEng(CompSc)
COMP 2396	Object-oriented programming and Java	2025-26 Sem 1	B+	6,00		BEng(CompSc)
COMP 3322	Modern Technologies on World Wide Web	2025-26 Sem 1	C	6,00		BEng(CompSc)
CUND 9001	Basic Spoken and Written Cantonese for Mandarin Speakers	2025-26 Sem 1	A-	6,00		BEng(CompSc)
ECON 1280	Analysis of economic data	2025-26 Sem 1	A+	6,00		BEng(CompSc)
CCHU 9034	Architecture and Film	2025-26 Sem 2	A-	6,00		BEng(CompSc)
COMP 2120	Computer organization	2025-26 Sem 2	A	6,00		BEng(CompSc)
COMP 3314	Introduction to machine learning	2025-26 Sem 2	A	6,00		BEng(CompSc)
FINA 1310	Corporate finance	2025-26 Sem 2	A+	6,00		BEng(CompSc)
FITE 2010	Distributed ledger and blockchain	2025-26 Sem 2	B	6,00		BEng(CompSc)
MKTG 2501	Introduction to marketing	2025-26 Sem 2	A	6,00		BEng(CompSc)
COMP 1110	Computing and data science in everyday life	2026-27 Sem 1		6,00		BEng(CompSc)
COMP 3230	Principles of operating systems	2026-27 Sem 1		6,00		BEng(CompSc)
COMP 3278	Introduction to database management systems	2026-27 Sem 1		6,00		BEng(CompSc)
ECON 2280	Introductory econometrics	2026-27 Sem 1		6,00		BEng(CompSc)
FINA 2320	Investments and portfolio analysis	2026-27 Sem 1		6,00		BEng(CompSc)
FINA 2330	Financial markets and institutions	2026-27 Sem 1		6,00		BEng(CompSc)

Semester GPA & Cumulative GPA (Not applicable to BDS & MBBS)

Term	Semester GPA	Cumulative GPA	Academic Program	Level
2024-25 Sem 1	3.92	3.92	BEng	Year 1
2024-25 Sem 2	3.83	3.87	BEng	Year 1
2024-25 Sum Sem	0.00			Year 1
2025-26 Sem 1	3.38	3.70	BEng(CompSc)	Year 2
2025-26 Sem 2	3.83	3.73	BEng(CompSc)	Year 2
2025-26 Sum Sem				Year 2
2026-27 Sem 1	0.00			Year 3
2026-27 Sem 2	0.00			Year 3
2026-27 Sum Sem	0.00			Year 3

Overall Result

Advanced Standing

Exempted Courses

Credits Gained

Credit Transfer

6 credits transferred from courses taken at Peking University, China

6 credits transferred from courses taken at Yousei University, Korea

Total Credits Transferred: 12

-- END OF TRANSCRIPT (STUDENT COPY) --