Ho Tin Ko

AI Researcher & Software Engineering Student — LLM Agents, Evaluation & Quantitative AI

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Education

PolyU Hong Kong Community College (PolyU HKCC) Sep 2026 – Expected 2028
Associate in Statistics and Data Science | The Hong Kong Polytechnic University

Yuen Long Merchants Association Secondary School Sep 2020 – Jul 2026
Secondary Education | Pre-University Enrichment: CityUHK Gifted Education Fund GenAIoT Programme (2023–2025); IEEE CIS Summer School on Quantum Computational Intelligence, Tokyo Metropolitan University (Jun 2024)

Research & Publications

QFinZero (Co-first author) ACL 2026 System Demonstrations
A Unified Financial Toolchain for LLM-Based Trading Agents | [Anthology PDF] [Code]

- Tested market-data, news-retrieval, and brokerage-simulation services; contributed evaluation cases across the financial-agent toolchain.
- Prepared reproducible workflow examples and demonstration materials for the unified trading environment.

AlphaBench (Second author) ICLR 2026 Poster
Benchmarking Large Language Models in Formulaic Alpha Factor Mining | [PDF] [Project] [Code]

- Contributed API, MCP, CLI, typed-client, web-interface, and test components for the Factor Feature Oracle (FFO) alpha-factor execution engine.
- Supported schema-driven LLM factor-search workflows with controller and evaluator agents, configurable search strategies, and YAML cold/warm starts.

EvoAlpha (Second author) NeurIPS 2025 Workshop
Evolutionary Alpha Factor Discovery with Large Language Models (Generative AI in Finance) | [OpenReview]

- Co-developed LLM-guided evolutionary search methods and adapted search workflows to AlphaBench's in-memory search framework.
- Validated search workflows across four equity universes: CSI300, CSI500, CSI1000, and S&P 500.

City University of Hong Kong (CityU-MLO) – Research Attachment 2024 – Present
Bright Future Engineering Talent Hub Summer Research Attachment (2025) & Ongoing Collaborating Student Researcher

- Completed a one-month laboratory research attachment under PhD-student supervision and continued collaborating with Prof. Chen Liu's MLO Group on LLM agents and quantitative AI benchmarks.

Selected Software Projects

Deep Research Skill 2026
Python | Standard-Library CLI | Research Agent Tooling

- Built a zero-dependency Python CLI to track sources, claims, and counterevidence in an auditable research ledger with validation checks, unit tests, and evaluation fixtures.

Claude Code WebUI 2025
React | TypeScript | Deno | AI Developer Tooling

- Implemented command discovery and handling across built-in, project, personal, MCP, and plugin commands; added context-aware command suggestions to the coding-agent interface.

Ultratranslate 2025
JavaScript | Chrome Extension (Manifest V3)

- Built an in-place DOM translation extension supporting dynamic page updates across DeepSeek, OpenAI, Google, and Baidu translation backends.

Competitions

AI Agent Security – Multi-Step Tool Attacks 2026
Kaggle Featured Competition (OpenAI, Google & IEEE) | **Silver Medal – 139th / 4,187 teams (Top 3.3%)** on the private leaderboard.

Other Ranked Kaggle Results 2026
Predicting Student Health Risk: **70th / 3,356 teams (Top 2.1%)** | Biohub Cell Tracking: **511th / 3,950 teams (Top 13.0%)**.

Technical Skills

Languages: Python, TypeScript, JavaScript, SQL, LaTeX, HTML/CSS | **Frameworks & Data:** PyTorch, Qlib, Scikit-learn, React, Deno, Pandas, NumPy
AI Systems & Tooling: LLM Evaluation, Agent Tool Use, Model Context Protocol (MCP), Git, GitHub Actions, Docker, Linux, CLI Tooling, Testing/CI