Jay Kang

AI & DATA PLATFORMS / FINANCIAL SERVICES

New York, NY / +1 201-918-0776 jianyu.mfe@gmail.com
linkedin.com/in/jaykang17

AI specialist with 10+ years across investment research, quantitative trading, and machine learning. At Mizuho, built a data-governance application now used by four domain teams and a production agent that generates data parsers. Work directly with business users, data teams, QA, and the MD sponsor, from requirements through release and support. Previously cofounded an investment firm and hired and trained its research and development team.

EXPERIENCE

Synechron | Mizuho Engagement | New York, NY

Agentic AI Consultant Dec 2025 - Present

- Built and launched a metadata application used by 4 domain teams across 10+ products. It links business definitions to physical tables so teams can review and publish mappings used in data transformation and client delivery.
- Turned the MD sponsor's initial framework into a working application as the sole developer, using Copilot and coding agents. Gather requirements from business, transformation, and data-quality teams; review priorities with the sponsor weekly.
- Implemented draft-to-publish approvals, semantic versioning, domain permissions, maker-checker controls, and audit records. The platform holds 100+ versions, hundreds of attributes, and thousands of enumeration values.
- Added a beta Sonnet/LangGraph interface for natural-language queries and proposed changes. Read-only requests fetch data; changes such as deleting an entity require impact assessment and user confirmation before execution.
- Built a production parser agent that generates Python parsers and loaders from provider documentation. Onboarded 10 datasets from one provider across about 5 formats, with document-length checks, retries, and human review before daily Databricks ingestion.
- Coordinate a 4-person QA team through daily standups and Jira. Work through Jenkins releases and continue to handle production incidents and support. Kept the initial release on Streamlit when a requested UI rebuild would have delayed launch.

Alysida Capital | New York, NY (Remote)

Co-Founder & Head of Quantitative Trading and Strategy Sep 2021 - Oct 2024

- Cofounded a quantitative investment firm and managed proprietary and external capital. Responsible for investment strategy, research priorities, and communication with investors.
- Moved research and development from external contractors to an in-house team. Hired and trained 4 junior researchers and developers, expanding to 10 with interns; organized work across prediction, risk, and infrastructure.
- Built a reusable model-testing workflow covering data inputs, parameter tuning, train/test windows, and trading simulation. Reviewed work for leakage and overfitting; tested changes with small amounts of capital before broader use.
- Worked on a Golang trading engine and TimescaleDB data pipelines. Added rules to reduce exposure after losses and pause trading around major economic releases.
- Explained the trading models to prospective investors and allocators and helped bring in external capital. Discussed fees, liquidity, and execution with brokers.

EARLIER EXPERIENCE

Synovation AI | New York, NY

Director, Machine Learning & Strategy Systems Sep 2019 - Aug 2021

- Designed machine-learning research frameworks and reinforcement-learning environments for financial decision-making.
- Advised investment firms on implementing machine-learning systems and improving their research workflows.

Meritz Asset Management | Seoul, South Korea

Quantitative Analyst, China Equities Sep 2014 - Jun 2017

- Used SVM models to screen the China-equity universe and select companies for further research.
- Visited companies, met management teams, and wrote investment reports combining quantitative screening with fundamental analysis.
- Built internal tools for factor analysis and risk scenarios.

Jichengli Futures | Dalian, China

Intraday Futures Trader Oct 2009 - Jan 2012

- Traded Chinese commodity futures intraday, including soybean oil, soybean meal, palm oil, and rubber.
- Managed position sizes and real-time risk, drawing on order-book behavior and execution conditions.

SELECTED PERSONAL PROJECTS

DwarfStar

Built a local LangGraph research console that stores work in artifacts and SQLite checkpoints. Supports human feedback, pause/resume, and recovery after a crash.

IRIS

Developed an experimental retrieval system using embeddings and a knowledge graph to vary the level of detail returned. Tested retrieval behavior and documented limitations against simpler baselines.

EDUCATION

Master of Financial Engineering **Dec 2019**

Stevens Institute of Technology | Thesis: Vine Copula Application on ETF Holdings

Master of Mathematics **Aug 2014**

Seoul National University | Thesis: Default Risk Modeling and Machine Learning

Bachelor of Science in Mathematics **Dec 2009**

University of North Carolina at Charlotte | Charlotte, NC

TECHNOLOGY & LANGUAGES

Python, SQL, PySpark, Azure Databricks, Unity Catalog, PostgreSQL, Streamlit, LangGraph, Anthropic Sonnet, Jenkins

Additional tools: Databricks SDK/CLI and Jobs APIs, LangChain, JavaScript/HTML, Golang, AWS, TimescaleDB

Languages: Mandarin Chinese (native), English (bilingual), Korean (fluent)