Yanqi Yang

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Education

Nanyang Technological University *Aug 2025 – Dec 2026*
Master of Science in Blockchain Technology

Temple University *May 2022 – May 2025*
Bachelor of Arts in Economics

Work Experience

Kaia Foundation *Oct 2025 – Feb 2026*
FX-Stablecoin Trading Engine — Systems & Trading Infrastructure Engineer

- **Test Automation Support:** Developed internal tooling and scripts to automate service validation, API checks, and regression-style testing for a distributed backend, improving test coverage and reducing manual debug time during system qualification.
- **System Qualification & Data Analysis:** Assisted in qualification and characterization workflows by collecting performance metrics (latency, error rates, throughput) from production-like environments and generating structured reports and dashboards for root-cause analysis.
- **Debug & Optimization:** Instrumented Spring Boot microservices with structured logging, metrics, and Redis-based tracing to identify concurrency issues and stabilize core service latency below 50ms under high-load scenarios.
- **Infrastructure & Correlation:** Built a multi-threaded pricing and validation layer ingesting Chainlink, Pyth, and CEX WebSocket streams, applying backoff and compensation logic to correlate off-chain computation with on-chain settlement results.

Projects

Multi-Agent Rust/Solana Smart Contract Security Auditing System *Remote*

- **Automated Test Pipeline:** Built a FastAPI-based analysis and validation pipeline covering source, AST, HIR, and MIR layers, enabling automated qualification of Rust/Solana programs with findings traceable to file, function, and line level.
- **Debug & Characterization:** Implemented logging, structured JSON reporting (Pydantic), and Redis-backed task state tracking to support reproducible debugging, failure characterization, and regression-style re-runs across large codebases.
- **Multi-Agent Framework:** Designed FINDER / SKEPTIC / FIXER roles to validate candidate issues through discovery, counter-evidence, and remediation stages, reducing false positives and improving result consistency.
- **Semantic Correlation:** Integrated embedding-based retrieval with Qdrant to correlate functions, call graphs, and control-flow paths, supporting cross-module reasoning and verification of execution and state-mutation order.

Skills & Competencies

Test & Automation: Test Development, System Qualification, Data Analysis, Debugging, Regression Testing, Logging & Metrics, Performance Optimization

Programming & Scripting: Python (Advanced), Java, C++, Shell Scripting (Linux/Windows), JavaScript

Backend & Frameworks: FastAPI, Spring Boot, Django, Redis Cluster

Infrastructure & Tools: Docker, Git, Linux, Web3j, Caver-java

Data Systems: PostgreSQL, MySQL, Qdrant, Chroma