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EDUCATION

WorldQuant University January 2025 - Present
Master of Science in Financial Engineering
University at Buffalo. The State University of New York Augest 2024
Bachelor of Engineering, Computer Science (Honors: Cum Laude, Dean's List)
Relevant Coursework:
Algorithms · Probability & Statistics · Operating Systems · Distributed Systems · Numerical Computing

SKILLS

Programming Languages: Python (NumPy, Pandas, vectorized computation), C++, Typescript, Javascript, Solidity, Yul
Quant & Data: Probability & statistics, time-series concepts, PnL attribution, drawdown & volatility analysis, numerical modeling
Trading & Crypto Systems: Market data ingestion (REST / WebSocket), exchange API integration, order-lifecycle concepts, DeFi protocol mechanics, EVM execution and gas dynamics
Infrastructure & Systems: Linux, Docker, AWS, PostgreSQL, Redis, Git
Smart-contract tooling: Foundry, Hardhat, OpenZeppelin, Chainlink

PROFESSIONAL EXPERIENCE

BlockChain Engineer, LN Compute (Atlanta, GA) April 2025 - Present

- Designed and implemented **performance-oriented smart-contract systems** using Solidity, Huff, and Yul, emphasizing deterministic execution, correctness, and auditability.
- Built backend services in **TypeScript / Node.js** to coordinate state transitions and event-driven workflows across distributed participants.
- Modeled operational workflows using **SQL and structured data analysis**, identifying bottlenecks and translating real-world constraints into system-level optimizations.
- Developed **data pipelines and monitoring logic** to support real-time state visibility and fault detection, concepts directly applicable to trading and settlement systems.

Quant signal: deterministic systems, correctness under constraints, data-driven optimization.

AI Developmen Intern — Research & Development, Copani (Cicero, NY) June 2024 - Augest 2024

- Preprocessed and analyzed structured datasets using **Python (Pandas, NumPy)** with statistical validation to ensure data integrity.
- Implemented a **CNN model** in TensorFlow, focusing on reproducibility, numerical stability, and evaluation metrics.
- Deployed a **RESTful inference service** using Flask, emphasizing reliability, latency awareness, and production readiness.

Quant signal: numerical computing, data pipelines, production systems.

PROJECT EXPECIENCE

High-Performance Limit Order Book & Matching Engine (C++)

- Designed and implemented a deterministic, single-threaded limit order book with price-time priority, partial fills, and order cancellation.
- Used intrusive FIFO queues and pooled allocation to minimize heap churn and improve cache locality on the matching hot path. Included test suite covering partial fills, FIFO ordering, cancellations, and best bid/ask invariants.

Real-Time Crypto Market Data Pipeline with Latency Analysis

- Built a real-time crypto market-data pipeline with deterministic timestamping to support latency analysis and downstream trading research.
- Measured and analyzed exchange-to-receive latency versus internal processing latency, showing network latency dominates local decode/normalize stages by 4–5 orders of magnitude.