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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.

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.

PROJECT EXPECIENCE

Quantum-Flow (Low-Latency Trading Engine & Market Data System)

- Built a deterministic low-latency trading engine with per-symbol limit order books, pluggable strategies, and Unix-domain socket ingestion of normalized market events from a Python real-time data pipeline.
- Implemented WebSocket-based state/latency broadcasting and end-to-end latency analysis from exchange feed to strategy execution, with unit tests validating order book invariants and strategy behavior.

Graphics-Engine (SIMD-Optimized CPU Graphics Engine Core)

- Developed a performance-focused CPU rendering pipeline using SIMD-accelerated math, SoA scene representation, batched transforms/culling, and draw-call construction for microsecond-level workloads.
- Designed custom allocators and lightweight profiling/benchmarking infrastructure, validating correctness and performance under aggressive O3/LTO/AVX optimizations.