SHUCHEN MENG

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EDUCATION

NEW YORK UNIVERSITY, TANDON SCHOOL OF ENGINEERING **Brooklyn, NY**
Master of Science in Financial Engineering Expected 05/27
GPA: 3.7/4.0

CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS, CHINESE ACADEMY OF FINANCE AND DEVELOPMENT **Beijing, China**
Master of Finance 06/21
GPA: 3.8/4.0

CHINA AGRICULTURAL UNIVERSITY **Beijing, China**
Bachelor of Economics (Finance) 07/19
GPA: 3.8/4.0

SKILLS

- Programming: Python (Scikit-learn, TensorFlow), C++, SQL, R
- Quant: Stochastic modeling, time-series analysis, derivatives pricing, volatility modeling, SQLite, Hadoop, AWS, libcurl

EXPERIENCE

ZHENGZHOU COMMODITY EXCHANGE, Zhengzhou, China 07/21 - 07/25
Director->Assistant Manager->Manager (Level 2) promoted twice from entry-level role, Trading Department

- Conducted in-depth derivatives microstructure; produced monthly/annual reports on futures & options performance (liquidity, slippage, P&L, hedge ratios); issued special briefs for extreme markets and policy changes with actionable trading/risk guidance.
- Optimized market-making quoting obligations and incentives to ensure achievement of liquidity and stability targets
- Administered market-maker admissions, performed on-site compliance checks with required rules, and issued annual market-making reports covering liquidity, spreads, depth.

CITIC CONSTRUCTION INVESTMENT SECURITIES, Beijing, China 02/18 - 05/18
Intern, Strategy Research Group

- Independently built two structured research databases covering financial-market and CPI commentary data, organizing historical releases and market indicators for recurring strategy analysis.
- Supported three thematic research areas, import substitution, sector funds, and high-dividend equities, through dataset construction, security screening, and research-report development.

ACADEMIC PROJECTS (Github link)

- *Enhancing Exchange Rate Forecasting with Explainable Deep Learning Models.* 4th International Conference on Electronic Information Engineering and Computer Science (EIECS)
- *Harnessing Earnings Reports for Stock Predictions: A QLoRA-Enhanced LLM Approach.* 6th International Conference on Data-driven Optimization of Complex Systems (DOCS)
- *Advanced user credit risk prediction model using lightgbm, xgboost and tabnet with smoteenn*. 2024 IEEE 6th International Conference on Power, Intelligent Computing and Systems (ICPICS)

REGIME-AWARE MULTI-STRATEGY TRADING & EXECUTION PLATFORM 2026

- Co-built regime allocation for concentrated multi-strategies; compared macro/half-life, feature-rule, and Gaussian HMM classifiers. A sticky prior plus asymmetric 3-day dwell cut switches from 243 to 14 while preserving all 106 defensive days.
- Designed continuous three-layer scalars-portfolio covariance, strategy health, and execution conditions-for smoothed exposure and strategic-vs-temporary de-risking; built a 1-min parent child order simulator with ADV caps, spread impact, partial fills, synchronized pair legs.
- Integrated risk-adjusted targets with Alpaca paper trading to reconcile broker orders, fills, and positions against simulated execution.

VWAP EXECUTION RESEARCH ENGINE 2026

- Developed a multithreaded C++ execution, using MapReduce-style aggregation to construct historical 15-minute intraday volume profiles. Allocated a 50,000-share parent buy order across 27 execution buckets based on 14 training days, implementing modular components for CSV parsing, timestamp handling, order scheduling, VWAP calculation, and structured output generation.
- Benchmarked the baseline execution against market VWAP, measuring 5.14 bps of implementation shortfall, equivalent to approximately $3.37K of incremental execution cost on the simulated order.

QUANT LLM REINFORCEMENT FINE-TUNING 2026

- Built a SmolLM2 fine-tuning pipeline for structured Black-Scholes tool calls, combining LoRA SFT, GRPO, DPO ablation, reward design, and leakage-controlled synthetic data generation.
- Achieved 94.8% exact tool-call success and 97.5% routing accuracy, while reducing false-positive tool use from 85% to 5% through iterative training and evaluation.

HONORS

Competition, Mathematical Contest in Modeling (MCM) (**Meritorious Winner**)(2018), Summa Cum Laude 2021