Xiaoxuan **Zhang**

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"Belief precedes insight."

Summary

Experienced software engineer with 7+ years of backend development, blockchain infrastructure, and distributed systems, including Kubernetes-based platforms. With deep enthusiasm in algorithmic trading and quantitative finance, I have been actively involved in cryptocurrency markets for years, building custom strategies on TradingView and implementing a real-time trading infrastructure using C++ and CUDA.

Skills

Programming	C++, Golang
Parallel & GPU Computing	CUDA, OpenMP
Quantitative Trading	TradingView (Pine Script), Backtesting
Infrastructure	Redis, MongoDB, Docker, Kubernetes
Tools & Frameworks	Pytorch, Boost.Asio, Pandas

Work Experience

Mavenir Systems — *Shanghai, China*

Senior Software Engineer — *Feb. 2021 – Jun. 2024*

- Led development and maintenance of microservice-based network element management platforms for global telecom customers.
- Built and managed Kubernetes infrastructure to support containerized deployments with high availability and resilience.

PanYin Information Technology Co., Ltd. — *Shanghai, China*

Blockchain Engineer — *Nov. 2018 – Dec. 2020*

- Served as core developer for the LAVA public blockchain (POC consensus), handling architecture and Go implementation.

QiMou Investment Co., Ltd. — *Shanghai, China*

Quantitative Researcher — *Feb. 2018 – Aug. 2018*

- Researched and enhanced multi-factor alpha models for A-share equities.
- Implemented and backtested technical analysis strategies for short-term trading signals.

Projects

GeekChomolungma: GPU-accelerated Quant Trading Platform — *Remote / Ongoing*

https://github.com/GeekChomolungma — *Jul. 2021 – Present*

- Developed a quantitative trading platform in C++ and CUDA, enabling real-time, multi-asset strategy backtesting and parallel evaluation on GPUs.

Lava: PoC-based Cryptocurrency — *Shanghai, China*

https://github.com/lavaio/lava — *Feb. 2019 – Dec. 2020*

- Forked from Bitcoin Core, Lava introduced a Proof-of-Capacity consensus mechanism with optimized disk I/O logic.

Option Pricing and Volatility Surface Modeling — *Amsterdam, Netherlands*

Research Project (UvA) — *Jan. 2024 – Apr. 2024*

- Implemented Black-Scholes and Monte Carlo-based models to price vanilla and barrier options.
- Generate volatility smiles and implied volatility surfaces.

TradingView Pine Script Strategies for Crypto — *Remote / Personal*

Individual Strategy Design — *2020 – Present*

- Designed and deployed multiple Pine Script strategies (e.g. trend-following, volatility reversal, volume breakout).
- Used long-term crypto market data to backtest and tune strategies under realistic execution assumptions.

Education

University of Amsterdam

Amsterdam, Netherlands

M.Sc. in Computational Science

2024 – 2026 (expected)

- GPA: 8.0 / 10.0
- Focused on stochastic differential equations (SDEs), Monte Carlo simulations, and numerical methods for option pricing.
- Studied numerical PDE solvers, discretization, and iterative schemes for scientific computing.
- Completed advanced coursework in GPU programming (CUDA), large-scale parallel systems, and Big Data infrastructure.

Wuhan University

Wuhan, China

M.Eng. in Control Engineering

2013 – 2015

- GPA: 3.5 / 4.0
- Core courses included Matrix Theory, Control Theory, Numerical Analysis, and Optimization.
- Focused on modeling and simulation for industrial processes using SVM, LS-SVM, and PSO in Matlab.

Wuhan University

Wuhan, China

B.Eng. in Automation

2009 – 2013

- GPA: 3.38 / 4.0
- Strong foundation in mathematics, hardware/software integration, and C++ programming.
- Took courses overlapping with Mathematics Department, gaining solid theoretical grounding.