

Jiangkun QIU

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⚙️ Skill Set

- Expertise in Rust for 4 years in High Frequency Trading and web3.
- Long history of learning Java, C, C++ since primary school
- Algorithm and Data Structure training and competitions in middle and high school
- A wide technical stack, all main stream languages in fields from backend to basic frontend, from machine learning to smart contracts

🎓 Education

- HKUST, Hong Kong, Undergraduate, Computer Engineering major 2020-2025
- Osaka University, Japan, Exchange, Humanity courses 2023

👥 Working Experiences

Intern Market Access	Qube Research and Technologies	Feb 2023-Now
<ul style="list-style-type: none">• QRT is a global quant trading company split from Credit Suisse• Implemented and optimized high-performance links in C++ for processing incoming market data and executing outgoing orders.• Developed a comprehensive framework and advanced tools for efficiently managing and converting terabytes of historical market data.• Created graphical analyzers to assess and improve the performance of trading links, providing valuable insights for decision-making and optimization.• Designed and developed simulators for various exchanges, enabling accurate testing and evaluation of software and hardware order management system in simulated real-time environments.• Designed and migrate trading monitoring system to support large-scale and flexible monitoring• Studied mathematical techniques for hedging and backtesting		
Intern Server Arch	Beijing ByteDance	Apr 2022-Sep 2022
<ul style="list-style-type: none">• Proposed and implemented independently git-fuse, designed for frequent codegen service for huge repos, minimizing the total processing time to 1/20, disk usage to 1/100, used in Overpass. Shared a talk with 100+ audience in the company• Implemented a universal and customizable linter for ProtoBuf and Thrift, to facilitate automatic code review• Maintained and improved on DevFlow, a platform that integrates a fluent online editor, peer review for API changes, linting, compatibility check, code generation• Maintained and improved on Overpass, a widely used platform that collects RPC definition files and generate RPC client for other go projects		
Consultant	Various Companies	
<ul style="list-style-type: none">• Built a MVP exchange from scratch, implemented in-memory limit-order book, database API, user management, statistics dashboard, with special attention to compliance in Thailand• Built ColdVault, bringing Hardware Secure Module to Ethereum and Solona• Built MC^2, a copy trading platform but runs on Decentralized Exchanges		

- Built RedAlert, providing quick notification to price hikes in crypto world
- Built various smart contracts on Tezos, Ethereum and Solana

Intern Backend Dev	Mesoor AI	Dec 2020-June 2021
<ul style="list-style-type: none"> • Mesoor AI is a company in Shanghai, providing AI hiring platform to customers. • Implemented a distributed throttler for very slow yet critical requests, with modified Sliding Log algorithm in Scala Akka and Redis • Build a Slow Refresh Service, channeling PostgreSQL changelog to Kafka 		

Consultant	High Frequency Trading of Cryptocurrencies	Jul 2020-Feb 2023
<ul style="list-style-type: none"> • Designed and developed trading system in Rust from scratch, to collect market data feed and manage orders and accounting, with focus on ultimate low latency. • Developed market-making and arbitraging algorithms that earn profits in production, supporting 5 traders • Supported a various of exchanges: Binance, Okex, gateio, and many more de-centralized exchanges • Adopted and customize a TCP stack in Rust, running on DPDK to work around limitation of linux kernal network stack • Invented tools to parse json and format http request, outperform the defacto library by a margin 		

Projects

Personal Project	SakuraTrading	Feb 2023-Now
<ul style="list-style-type: none"> • SakuraTrading is an ongoing effort to build HFT trading system in Rust emphasizing correctness and personal usage • No compromise among correctness, performance and elegancy, with help of SHLL(see below) • Automatic selective computation of technical analysis indicators used in strategies • Versatile data server for debugging, dashboard and backtesting • Trade and backtest dashboard with E-Chart and React 		

Personal Project	High Level Staged Language	Jan 2022-Now
<ul style="list-style-type: none"> • SHLL enhances Rust's type system for greater expressiveness at build time. • Implements advanced optimizations like monomorphization and staging. • Enables cross-language compatibility for code translation and optimization. • Offers flexibility with optimization and interpretation modes. • Bridges high-level abstractions with low-level code generation. 		

Awards and Certifications

• China Computer Federation Certified Student Member	Jul 2019-Now
• First Prize in the High School Group of National Informatics Olympiad in Provinces	Nov 2017, Nov 2018
• Gold Award of RoboCom2018 Global Championship(Robot Competition)	Jul 2018
• Second Prize in 2017 Tsinghua University Dengfeng Cup Data Mining Competition	Jul 2018
• National Computer Rank Examination Level 4, Network Engineer	Nov 2016
• First Prize(6th) in the Middle School Group of National Informatics Olympiad in Provinces	Oct 2016
• First Prize(1st) in national finals of 19th He Education Cup Computer Competition	Jul 2016