

WENJUN YU

Experienced C++ Developer | Backend Engineer
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Summary

Experienced backend engineer with a strong background in C++ development. Proven track record in building scalable, high-performance systems and services. Skilled in optimizing code, resolving complex issues.

Skills

Skillset

Advanced algorithms & Data structures, STL, Design Patterns, PostgreSQL, Linux, DevOps, Docker, Git, Kubernetes, Requirements Analysis, Memory leak detection, Advanced debugging and troubleshooting, Performance profiling and optimization, Core dump analysis, Multithreading issues diagnosis, Static and dynamic code analysis

Programming Languages

C++(Proficient), Python(Familiar), Shell(Familiar)

Language

English (Fluent), Chinese (Native Speaker)

Education

Nanjing University Master Of Optical Engineering	09/2018 - 06/2021 College of Physics
Anhui University of Technology Bachelor Of Materials Engineering	08/2013 - 06/2017 School of Materials

Experience

ZTE corporation Software development engineer	06/2021 - 02/2024 Nanjing
<ul style="list-style-type: none">Developed and maintained core modules for the 5G Core Network Public Service System - OAM Project, focusing on data synchronization and configuration managementLed code reviews, identifying and resolving critical issues to ensure code quality and prevent potential faults, improving overall system reliabilityParticipated in the OAM High-Reliability Architecture Improvement - Configuration Architecture Optimization project as a key developer. Filled the gap in offline data consistency comparison functionality, significantly enhancing system reliabilityExperienced in resolving memory leaks using open-source tools such as Valgrind and diagnosing core dump issues with CrashSkilled in leveraging tools and code to reduce repetitive tasks, developed the BM CAAS environment automated deployment tool to enhance project efficiencyDeveloped FT design of data sync module; successfully created the FT module from scratch	

Projects

High-Frequency Trading System Independently designing and developing a cutting-edge high-frequency trading system with industry-leading performance	03/2024 - Now
<ul style="list-style-type: none">Architected modular system using advanced C++ (C++17) and key design patterns:<ul style="list-style-type: none">Observer for event-driven architectureFactory method for flexible algorithm creationStrategy for interchangeable trading strategiesImplemented ultra-low latency event bus with lock-free queuesOptimized WebSocket for high-throughput market data and order executionImplemented memory-mapped file I/O (mmap) for persistent storage, leveraging kernel-level page cache for asynchronous, low-latency disk operations, minimizing I/O bottlenecks and system latency impact.Key Performance Indicators:<ul style="list-style-type: none">Order execution latency: Consistently < 200 usMessage processing throughput: > 1k messages per secondTech stack: WebSockets, Lock-free algorithms, Memory-mapped I/O, SIMD optimization, Event-driven architecture	

Ultra-low latency systems, Concurrent programming, Design patterns, Kernel-level optimizations

XTP quantitative transaction interface subscription application Independent developer	05/2023 - 03/2024
<ul style="list-style-type: none">Independently developed a C++ project for an XTP quantitative trading interface subscription application. This project efficiently subscribes to the XTP API and obtains stock market information from securities exchanges through low latency and high concurrency means, achieving strong performance and scalabilityThe application can help traders carry out strategic analysis and trading, providing them with more convenient and reliable services, and is a very practical tool. I was independently responsible for the entire development process of the project, including requirements analysis, design, development, testing, and deployment, and achieved satisfactory performance	