## Contact

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## Top Skills

C++

Java Python

## Languages

chiness (Native or Bilingual) engish (Limited Working)

## Certifications

Getting Started with Accelerated Computing in CUDA C/C

MCSE CCNP

Jian Yang

Software Developer

Ellicott City, Maryland, United States

# Summary

Experienced back-end software developer with 18+ years of experience in C++.

Proven ability to lead the design, development, and debugging of large-scale software projects.

Strong understanding of OOP, design patterns, and software engineering principles.

Proficient in a variety of programming languages and technologies, including C++, Python, , Java, CUDA,Numpy, Numba TCP/IP, SQL, MySQL, SQL Server, and Redis.

Experience managing large software development teams.

At the same time, we continue to pay attention to new technological developments and continue to learn and improve our skills. Recently obtained certification in Accelerated Computing in CUDA C/C++ through study

# Experience

Bloomberg

### Software Engineer

March 2023 - Present (8 months) New York, United States

Mainly responsible for the upgrade and transformation project of Bloomberg terminal, especially the transplantation from sunOS system to Linux system, and upgrading the original code to make it more in line with modern C++ standard code

Apifiny

### Software Engineer

August 2021 - December 2022 (1 year 5 months)纽约地区

1. Responsible for developing a low-latency, high-efficiency quantitative trading system.
2. Connect to major crypt exchanges (Binance, Huobi, Okex, Ftx...), use websocket,http,FIX protocol
3. Efficiently process market information, bid, ask, and colleagues efficiently complete the calculation of EMA and other data, and provide strategic system use.
4. All strategies are loaded into the system in the form of xml, and according to market changes, complete the execution of strategies, such as send order,

and are responsible for maintaining and monitoring the changes of each order.

1. risk control
2. Strategy backtest, use your own recorded historical data or third-party data, backtest to verify the feasibility of the strategy
3. The analysis and presentation of the income report, this part is mainly done using python

Languages: c++, python Technical knowledge points:

FIX, websocket,tcp/ip,low-latency,high-efficiency quantitative,Design Patterns, memory optimization, efficiency improvement

Financial Knowledge Points:Spot,Futures,Swap,option,EMA,bid,ask.......

Database: Redis

reference: https://algo.apifiny.com/ OS: Linux Ubuntu

Highlight - Using my own understanding of the characteristics of the c++ language to optimize the trading system to the extreme, ensuring the low- latency and high-efficiency characteristics of the system operation

Conduent

### Software Developer

November 2018 - August 2021 (2 years 10 months) Maryland USA

Mainly responsible for the operation management system of vehicles in public transportation

Language: C++ ,C# Database: SQL Server OS: Windows

Highlight - The biggest highlight is to use my own understanding of software engineering to refactor this set of projects with a long history, making it more in line with modern software design concepts

TravelSky Technology Limited

### Technician

November 2017 - October 2018 (1 year) Beijing

Mainly responsible for reconstruction and development of domestic air ticket purchase system.

Language: C++ ,C# Database: SQL Server OS: Windows

Highlight - The domestic air ticket tariff system is a software system with extremely complex business logic. The biggest highlight is to lead the team to sort out the business logic and efficiently convert it into code logic, including server architecture design, code optimization, etc.

Design of code reconstruction scheme for domestic freight rate system.( Code refactoring principle)

Redesign of the structure of the domestic freight rate system.( Data center establishment,Redis)

Carding and specification of software development process:(Agile development)

Management and control of the entire development process

Team management： At the same time, responsible for the management tasks of the technical team. The entire technical research and development team has nearly 120 people, responsible for project management and implementation, optimization plan, progress management, etc.

Elex Co Ltd

### Lead Software Engineer(COK)

June 2013 - February 2017 (3 years 9 months) BeiJing

Language: C++ Java Database: SQL Server OS: Windows & Linux

Technique Used: C++, TCP/IP, Linux, Java,Protobuf , Designed and developed game server for COK projects.

Designed and developed memory db system for COK game protject Designed and developed RPC for COK game project.

Highlight - Successfully developed a set of real-time strategy mobile games that are popular in dozens of countries and have millions of players. At the same time, the background server reached more than 300 at the peak

SNTA technologies Co Ltd

### CTO

March 2009 - May 2013 (4 years 3 months) Bei Jing

Designed and developed game Server framework Designed and developed communication protocol of game Designed and developed db cache system of game .

Designed and developed tools of game AI

Designed and developed tools of game scripts system. Led a team of 25 members to develop the this game

Language - C++, Lua Database - mysql OS: Windows

Highlight -

I have built a complex and efficient MMORPG game server system. From the beginning with only one server, I designed a complete server architecture group to meet the increasing number of users, including login servers, gateway servers, game logic servers, database servers, super servers and chat servers. The final system has more than 2 million lines of code and involves many technical challenges. Of course, this period was also the stage where I gained the most, mainly in the following areas:

1. deeper understanding of C++, particularly the language features of C

++ such as the design and implementation of OOP concepts, memory management, and message queues.

1. deep understanding of TCP/IP socket programming, particularly in the design and debugging of high-performance, high-throughput network programming.
2. deep understanding of multi-threading and memory pooling.
3. deep understanding of design patterns and their implementation, including the producer-consumer pattern, singleton pattern, and thread pool pattern.
4. I have gained a deep understanding of RPC design between servers, and implemented a RPC call pattern suitable for games using C++.
5. This project has given me the ability to design and architect large software engineering projects, with the entire project having approximately 2 million lines of code. Efficient and organized systems are key to reducing maintenance costs.
6. I have gained a deeper understanding of how to efficiently design database structures.
7. Greatly improved my program debugging skills, mastered vs, windbg, gdb, memory breakpoints and other debugging skills

Light space Technologies Inc

### Staff Software Engineer

October 2005 - May 2009 (3 years 8 months) BeiJing

Language - C++ Database - sqlserver

OS: Windows Server, Linux

Highlight - The biggest highlight of this stage is to solve the problem of socket high-performance data transmission. Use IOCP under Windows, and use epoll mode under Linux to complete high-performance data transmission. At the same time, c++ multi-threading and socket debugging technology have also been improved, such as: the use of windbg, gdb, etc.

# Education

TianJin Normal University

Bachelor's degree, computer science · (July 1998 - August 2002)