# Yongyu Xian

✉ wentby719@gmail.com    ☐ +86 159-1579-0273    ⚲ Shenzhen, China

## TECHNICAL SKILLS

- Programming Languages: Python, Java, SQL, Golang, C++, C#
- Technologies: Git, Linux, MySQL, PostgreSQL, MongoDB, Kubernetes, RabbitMQ, Redis, Scikit-Learn, Pandas

## WORK EXPERIENCE

**CITIC Securities(CLSA)**                                                                 **Shenzhen, China**
Senior Software Engineer                                                                  Jun 2024 - present

- Delievered a **WPF-based** transaction cost analysis APP, calculating **20+ benchmarks** for trades and generating analysis reports. Empowered traders to optimize trading strategies like price and timing for institution clients.
- Implemented **thread pool management** and provided caching strategies, including preloading and scheduled updates, to optimize high-concurrency resource access and benchmark calculations, reducing processing time by **50**% (**from 3 minutes to 1.5 minutes**).
- Established a Github-based R&D workflow involved branch management and **CI/CD pipelines**, driving a **30**% improvement in individual productivity and scaling the process across the department.

**FUTU Holdings Limited**                                                                  **Shenzhen, China**
Software Engineer                                                                         May 2021 - May 2024

- Coordinated with teams to design a new **real-time** charging system that caters to worldwide stock trading, leading an significant improvement in processing order using **RabbitMQ** and **multithreading** compared to the old one.
- Implemented a CRM system using **Golang** that allows for more sophisticated operation of user and transaction data, enabling business teams to apply more nuanced management technologies to customer relationships.
- Redesigned monolithic charging system into **multi-microservices** modules to achieve better **fault isolation** and scalability, managing to address increased request throughput limitation.
- Developed a reconciliation service for user data, guaranteeing customers precise clearing services with **100**% accuracy.
- Conducted code review and UAT with engineering team, debugged following standard principle and provided technical solution with domain expertise.

## PROJECTS

**Customer Relationship Management System Development**                                    Jan 2023 - May 2024

- Built a user-friendly CRM system from scratch using Golang to manage user's trading package customization.
- Implemented over **50** stable, fault-tolerant RESTful API combined RabbitMQ, redis, mysql with gorm ORM.
- Embedded centralized monitor service into system using **Prometheus** to detect user's unexpected situation.
- Reached over **80**% unittest coverage and high availability for core business code using **goconvey**, and no downtime has been observed in production environment.

**Stock Charging System**                                                                  Mar 2022 - May 2024

- Designed a **real-time** fee deduction system for stocking trading orders that tailor charges to customers' selected packages, seamlessly integrated with instant clearing service for market transactions.
- Utilized **sliding windows limiter** to retrieve orders synchronously from external API for smoothing burst data input.
- Implemented access-calculating streaming pipeline using **RabbitMQ** for **high concurrency**, with a processing time of under **500ms** per order.
- Built a reconciliation service to compare daily business orders' fees between upstream expenses and calculated result, ensuring system stability and **100**% accuracy.

**Twitter Emotion Analysis**                                                               Feb 2020 - Apr 2020

- Designed an **emotion detection** system to help company analyze and understand user behaviours on Twitter.
- Preprocessed over 1000 emotion-tagged tweets using **NLTK** for **tokenization**, **stemming** and **lemmatization**, and initially classified them in 8 basic emotional classes.
- Calculated each tweet's scores across 8 basic emotional classes using **NRC lexicon strategy** and reclassified the tweet under the emotional category with the highest score as its final classification.
- Achieved to **72**% accuracy through crowdsourcing, surpassing the **48**% based on solely emotion label classification.

## EDUCATION

**University of Glasgow**                                                                   **Glasgow, UK**
Msc in Data Science(merit)                                                                 Sept 2019 - Dec 2020

**Guangdong University of Foreign Studies**                                                 **Guangzhou, China**
BSc in Computer Science                                                                    Sept 2014 - Jun 2018