**Yu Wenya**

Target：Backend Developer｜Email：ywy\_hfut@163.com｜Phone: +65 80674181

|  |
| --- |
| **Education Background** |

Nanyang Technological University(MSC) Computer Science(Blockchain) Computer Security Lab 2023.08 ~ 2024.07

Hefei University of Technology(B.E.) Software Engineering 91.02/100 (rank 5/169) 2019.09 ~ 2023.06

|  |
| --- |
| **Internship Experience** |

**Tiktok (Singapore) Golang ｜ Backend intern 2023.****12 ~ 2024.06**

* Key Skills**：**ByteFaaS｜ByteFlow｜Faas
* Summary**：**Built a live FCDN stream push-pull cluster self-healing system and inspection pipeline, **increasing node online rates to over 95%**.
* **Code Implementation**: Wrote over 2000 lines of high-quality code, including logic for resource self-healing, automation scripts for the inspection pipeline, and front-end pages.
* **Concurrency Optimization**: Introduced MySQL distributed locks to ensure data consistency and operational safety during resource recovery, effectively preventing data race conditions.
* **Database Design and Optimization**: Responsible for MySQL database table structure design and optimization, improving query speed through indexing and query optimization.
* **Tools and Tech Stack**: Used Git for version control, leveraged FaaS technology for service elasticity and cost reduction.
* **Outcomes**: Increased the online rate of streaming and pulling nodes to over 95%, significantly enhancing the stability and availability of live streaming services, and saving substantial costs

**USTC GUOCHUANG Java/Python｜Algorithm Development Intern 2021.12 ~ 2022.02**

* Key Skills：Spring Boot｜Flask｜OCR｜｜Redis｜Docker
* Summary：Developed an AI finance system **from scratch**. **Software Copyright**(First author )
* **Awards**: Received the "**Outstanding Intern**" award **twice**, along with a **bonus**.
* **Invoice OCR**: Utilized YOLO3 for text detection and CRNN for text recognition, offering API services through Flask.
* **Backend Login Interface**: In charge of backend login interfaces using Spring Boot; implemented JWT authentication, SHA256 salted password storage, Google OAuth2, and email verification. Deployed with Docker.

|  |
| --- |
| **Projects and Research Experience** |

**Decentralized AI Video Play System Outstanding Capstone project 2023.12 ~ 2024.03**

* Key Skills**：**Pytorch｜Solidity | Golang | Go-Kit | GPRC | Consul | Redis | Docker | CI/CD
* Summary**：**Built a video playback and recommendation system **from scratch** using **Go-kit, Gin, and Gorm**.
* **Microservices Architecture**: Implemented **gRPC** communication and utilized **Consul** for service and configuration management. **CI/CD** was achieved through **Docker** and **GitHub Actions**.
* **Cloud-Native and Distributed Systems**: Integrated **ELK** for log collection and analysis, **Prometheus**, **Grafana**, and **AlertManager** for system monitoring and alerts. Utilized **Kong** as an API gateway for authentication, rate limiting, and load balancing. Leveraged **MinIO** for video streaming object storage, constructing a highly reliable distributed system.
* **Load Testing and Bottleneck Analysis**: Conducted stress testing with **JMeter** and performed performance bottleneck analysis using **ELK logs** and **PPROF** flame graphs. Implemented features such as leaderboard with **Redis Zset**, pagination queries, **MySQL master-slave replication** for **read-write separation**, **database indexing**, and **optimization of slow SQL queries**.
* **Decentralized Recommendation Algorithm**: Utilized distributed training and deployment of Twin Tower and DIN models on the PAI platform. Proposed a decentralized recommendation algorithm based on ERC20 and Uniswap.

**EVM Transaction Risk Monitoring Based on LLM NTU CSLAB 2023.08 ~ 2024.02**

* **Key Skills：**LLM | LLaMA2 | Fine-tuning｜QLORA｜PyTorch
* **Summary：**Fine-tuned **LLAMA2** with QLORA for identifying EVM risky transactions, achieving 80% accuracy.
* **Outputs：Paper** submitted: "Ethereum Transaction Risk Detection with QLORA-Tuned LLaMA2."

**Open-Indexer For EVM Inscription Best project in the NTU Web3 Course 2024.01 ~ 2024.02**

* **Key Skills：**EVM｜ ERC-7583 ｜inscription Indexer
* **Summary：**Implemented an EVM inscription system and an open-source indexer by implementing the ERC-7583 protocol.
* **Outputs：Minimized gas fees** to near-minimal and **cut response times from 13s to 1s** by optimizing storage and indexing.

**AI Text-to-Video Generator Virtual Reality AI-Lab In HFUT 2022.03 ~ 2022.12**

* **Key Skills：**PyTorch｜TransCGAN｜Text-to-Video
* **Summary：**Designed **TransCGAN** Model to generate custom character action videos from text commands.
* **Outputs：**Paper "TransCGan-based Human Motion Generator."(First author)

**Electric Equipment Management App Sensitive Enterprise (Hefei) 2022.03 ~ 2022.12**

* **Key Skills：**Flutter｜Dart｜Modbus TCP
* **Summary：**Developed a **Flutter** app for an electric company to manage electric equipment operation and maintenance in remote or LAN environments without 4G network.
* **Outputs：Independently developed a Dart version of Modbus TCP/IP SDK**, **filling the gap** in Dart's Modbus TCP/IP communication SDK.

|  |
| --- |
| **Papers/Patents/Copyrights/Honors/Awards** |

* **Papers/Patents/Copyrights :** One SCI Q1 paper, One EI paper,Two patents,Two software copyrights
* **Honors:** National Scholarship | Outstanding Graduate | Excellent Student
* **Awards:** National Third Prize in Computer Design Competition | Internet+ Provincial Gold Medal

|  |
| --- |
| **Key Skills** |

* **English：**IELTS 6.5, GRE 329+3.5
* **Programming Languages:** Proficient in **Go** syntax and standard library, with understanding of **GMP** model, **Channels**, and garbage collection. Familiar with common design patterns, with knowledge of **Java/Python/Dart**.
* **Databases and Caching**: Skilled in **MySQL** database management and SQL scripting, experienced with **Redis** middleware, including cache application and addressing cache-related issues. Knowledgeable about Redis's reliability, scalability, distributed lock features, network architecture, memory management, and persistence design.
* **Operating Systems**: Familiar with **Linux** basic operations, proficient in common commands and **Shell** script writing, skilled in **multi-process/thread** development. Understanding of Linux memory management, process/thread scheduling, and inter-process communication.
* **Computer Networks**: Understanding of **CDN** and **DNS** principles. Knowledgeable about **Socket network programming**, proficient in IO multiplexing models such as select/poll/epoll. Understanding of TCP/IP protocol stack; familiar with TCP connection establishment/termination process, congestion control, and sliding window; familiarity with HTTP(s), Modbus TCP/IP, and other upper-layer application layer protocols. Knowledgeable about UDP communication.
* **Monitoring and Logging**: Proficient in using Prometheus and understanding its underlying principles, able to use ELK to build log systems.
* **Related Tools**: Familiar with tools such as Git/Docker, knowledgeable about CI/CD processes.