CAI ZICHUN JASON

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RESEARCH INTERESTS

Network System: Distributed System, Blockchain, Distributed Machine Learning

EDUCATION

The Hong Kong University of Science and Technology *Hong Kong* *Aug. 2022 — Dec. 2023*
Master of Science in Information Technology *GPA: 3.51/4.00*

Sun Yat-sen University *Guangzhou* *Sep. 2018 — Jul. 2022*
Bachelor of Science in Information Engineering *GPA: 3.70/4.00*

- *Minor in Mathematics and Applied Mathematics*
- *Transferred from School of Chemical Engineering and Technology* *Sep. 2018 – Jul. 2020*

Undergraduate Thesis: Blockchain-based Digital Audio Copyright Management System

COURSES

Master's Courses	Bachelor's Courses
· Advanced Algorithm	· Computer Network
· Advanced Computer Network	· Information Theory
· Advanced Cloud Computing	· Information Security
· Data Mining and Knowledge Discovery	· Stochastic Processes & Statistical Signal
· Advanced Digital Design	Processing

AWARDS

Outstanding Project of Innovation and Entrepreneurship Competition *Guangzhou*
The College's Outstanding Project of the Student's Platform for Innovation and Entrepreneurship
Training Program, *Sun Yat-sen University* *Dec. 2021*

Second-Class Scholarship *Guangzhou*
Outstanding Student, *Sun Yat-sen University* *Oct. 2020*

Third-Class Scholarship *Guangzhou*
Outstanding Student, *Sun Yat-sen University* *Oct. 2019*

Third Prize of National Mathematical Modeling Contest *Guangzhou*
Guangdong Division Award, *China Undergraduate Mathematical Contest in Modeling* *Oct. 2019*

ACADEMIC SKILLS

Programming	Golang, Python, C++, TypeScript/JavaScript, Shell, Rust, Java
Framework	Hyperledger Fabric, Go-Ethereum, GIN, PyTorch, React.JS
Software Tools	Docker, Kubernetes, Nginx, Redis, MySQL, Linux, Git

WORK EXPERIENCE

The Hong Kong PolyTechnic University, Internet & Mobile Computing Lab *Hong Kong*
Research Assistant — Blockchain Group *Apr. 2024 — Apr. 2025*

- Research on Blockchain-based Data Sharing, Decentralized LLM Serving System(DePIN), Decentralized Federated Learning

- The project, **Blockchain-based Aircraft Data Management and Sharing Platform** which serves as a decentralized and access controlled storage layer for dynamic data template, was completed and delivered the project by me as the major designer and developer

- Serve as an Event Support Staff, help organize academic conference **Middleware 2024**

Skyland Innovation Technology Co, Ltd *Hong Kong*
Research Assistant — Full-Stack Development Intern *June.2023 - Sept.2023*

- Responsible for OA system development, mainly focus on multi-currency reimbursement system

- The reimbursement system provides tabular web interface and Excel File import support for rapid data operation, functions of online reimbursement submission and approval and reimbursement document generation to support online and offline reimbursement process
Also, the system will execute daily crawling mission for currencies exchange rate updating and cache historical rate for fast query

- Adopt Nginx for system service load balancing, and set up productive and testing environment for CI/CD

PROJECT EXPERIENCE

Blockchain-based Digital Aircraft Data Management and Sharing Platform *Hong Kong*
Major Developer — Project in PolyU IMCL *May. 2024 — Jun. 2025*

- **Blockchain as a Permissioned Database**
System can automatically generate and deploy data operating chaincode according to pre-defined data template. The system allow users to use Hyperledger Fabric as a structural database, providing functions of field-level access control, basic data operation and data operation tracing

- **Blockchian Network Autoscaling**
System provides RestFul APIs of Network Autoscaling, allowing admin users to create organization, peer nodes, channel and network participation

- **Intranet Production Environment Setup & System Deployment**

Research on Blockchain-Based Digital Rights Management *Guangzhou*
Individual Project — Graduation Design in SYSU *Feb.2022 — June.2022*

- The system is designed for on-chain audio copyright market, providing functions of audio audit, audio on-chain copyright assignment, audio copyright trading, etc. The system functions are provided by Smart Contract and the system is deployed on Ethereum test chain.

- For uploaded audio audit, system applied Shazam algorithm, which could extract audio spectral characteristics as fingerprint, to generate audio originality proof. The system will only assign copyright for audio that passes shazam fingerprint similarity check

SKILLS & HOBBIES

Music	Saxophone, Jazz, R&B
Sport	Football, Jogging, Swimming
Languages	Chinese(Mandarin, Cantonese, Native Speaker), English