LING Shengchen

Tel: +852 4613 4000 Email: shengling2-c@my.cityu.edu.hk

EDUCATION

City University of Hong Kong 2022.08 - 2023.06

M.S. Electronic Commerce, *Department of Computer Science*

GPA 3.65

Northeastern University 2018.09 - 2022.06

B.E. Computer Science and Technology, *School of Computer and Communication Engineering*

GPA 3.04, Average Score 80.4

RESEARCH EXPERIENCE

Shanghai Jiao Tong University, Institute of Engineering Management 2021.06 - 2021.08

Research Intern in Project *The Whole-Process Supply-Chain Quality Management of Engineering Materials Based on Information Flow.*

- Problems solved: 1) different components of the traditional engineering material supply chain are separated from each other, which is infeasible to achieve real-time information sharing and traceability, 2) information is usually stored in one centralized database owned by one participant in the supply chain, resulting in material quality information easy to be tampered with.
- Solutions: studied on Hyperledger Fabric blockchain and IPFS to apply to supply-chain quality management especially for the on-chain proof of quality inspection reports, designed a customized structure based on production demands among parties (construction, transportation, supplier, and supervisor), and implemented a demo of private chain while using smart contracts for quality compliance reviews.

INTERNSHIP EXPERIENCE

Shanghai Tree-Graph Blockchain Research Institute (Conflux Network) 2021.09 - 2022.07

Research & Operation in Conflux Hydra hard fork and Mainnet routine maintenance.

- Organized 24 rounds of tests (alpha/beta/rc) for the hard fork binaries and gave feedbacks. The hard fork is mainly for 1) introducing finality via voting on a parallel PoS chain to protect against potential 51% attacks from PoW and 2) introducing a fully EVM compatible space inside the current blockchain.
- Assisted in providing technical support to developer community, especially in technical documentations, tutorials, and translations. Assisted in reviewing and incubating ecosystem projects on Conflux.

PROJECT EXPERIENCE

A Secure Data Sharing Platform Based on Blockchain+IPFS+SM2 Algorithm 2020.09 - 2021.05

National Innovation Project, No. 202119145011X.

- Research on implementation of a secure backup system via IPFS, uploading proof of backup on a private chain to ensure tamper-proof and traceability, and encrypts the objectives via asymmetric encryption algorithm SM2. Individually mainly focus on topic selection, node establishment, and cryptography research.
- Derivative Publication: Zhengyu Hu, Wenrui Liu, **Shengchen Ling**, Kuan Fan, "*Research on multi-objective optimal scheduling considering the balance of labor workload distribution*", PLOS ONE, 2021. Individually mainly focus on formal analysis, verifications, and writing & reviewing.

POPULAR SCIENCE PUBLICATION

A Book to Understand Web3.0 (ISBN: 9787121432354) 2021.12 -2022.03

Author on Chapter 3 "*The core technology of Web3.0 – Blockchain*" and Chapter 4.1 "*NFT standards*", including introductions on consensus mechanisms, typical blockchains, cross-chain bridges & oracles, decentralized storage, blockchain security and NFT standards.