LING Shengchen

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EDUCATION

City University of Hong Kong   2022.08 - 2023.06

M.S. Electronic Commerce, Department of Computer Science

GPA

Northeastern University, China   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 of Project: *The Whole-Process Supply-chain Quality Management of Engineering Materials Based on Information Flow*, Supervisor: Prof. XU Feng, Prof. HU Hao, Advisor: Mr. WANG Wen.

- Research on application of Hyperledger Fabric blockchain to the field of civil engineering for supply-chain quality management, especially for the proof of inspection reports, and design a new structure based on real demands among various parties to replace the traditional centralized ones, using smart contracts to implement quality compliance reviews.

INTERNSHIP EXPERIENCE

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

Research & Operation of Conflux Hydra hard fork and Mainnet routine maintenance, Supervisor: Dr. LONG Fan, Advisor: Mr. WANG Zhenghao.

- Organize 24 rounds of community beta tests for the hard fork version binaries and give feedbacks. The hard fork is mainly for introducing finality via voting on a stand-alone PoS chain to protect against potential 51% attacks from PoW, and introducing a fully EVM compatible space parallel to previous blockchain.
- Assist in providing technical support to Developers Community, especially in technical documentations, tutorials, and translations. Assist in reviewing and Incubating ecosystem projects on Conflux.

PROJECT EXPERIENCE

A Secure Data Sharing Platform Based on Blockchain+IPFS+SM2 Algorithm   2020.09 - 2021.03

National Project, No. 202119145011X, Supervisor: Prof. LU Ning.

- Research on implementation of a secure backup system via IPFS, which also uploads proof of backup process on Ethereum 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, August 5, 2021, https://doi.org/10.1371/journal.pone.0255737. Individually mainly focus on formal analysis, verifications, and writing & reviewing.

A Sharing Platform of IoT Key Data Based on Oracle   2020.12 – 2021.05

Provincial Project, No. 2021H030110, Advisor: Mr. YU Qilong.

- Research on implementation of Chainlink Oracle based on previous blockchain study, to solve the problem of actively obtaining off-chain data, specifically in this project, IoT data.

POPULAR SCIENCE PUBLICATION

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

Author on Chapter 3 "*The core technology of Web3 – 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.