Jintong Liu

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Education

Huazhong University of Science and Technology, Wuhan, China 09/2019 – 06/2022

M.Eng (Academic Degree) in Computer System Architecture
Academic focus: Distributed systems, blockchain, smart contract, consensus, storage systems

Huazhong University of Science and Technology, Wuhan, China 09/2015 – 06/2019

B.Eng. in Electronic Science and Technology, GPA: 3.93/4, Rank: 4/156

Publications

- **Jintong Liu**, Shenggang Wan, Xubin He. Alias-Chain: Improving Blockchain Scalability via Exploring Content Locality among Transactions, in: 36th IEEE International Parallel and Distributed Processing Symposium (**IPDPS '22**), Lyon, France, 30 May – 3 June 2022, IEEE. (Published)

Experience

Memo Lab Wuhan, China

Research Engineer 06/2022 – now

- Developed the production version of *Alias-Chain* by Golang, as an optimization module integrated in Ethereum. Achieved 60%-80% on-chain data shrinkage, while ensuring the compatibility and security.
- Designed frameworks and implemented modular services: (a) "Indexer" for monitoring blockchains' states and specified smart contracts. (b) "Decentralized Profile" to store users' profiles on-chain and off-chain using smart contracts and decentralized storage network. (c) Providing image search in decentralized storage network.

Blockchain Storage Research Center Wuhan, China

Graduate Research Assistant 09/2019 – 06/2022

- Investigated blockchains' architecture, consensus, data structure, smart contract, etc.
- Proposed *Alias-Chain* to scale out blockchains, designed and conducted experiments on a 100-machine cluster to verify the effectiveness of the solution.
- Made an oral presentation of *Alias-Chain* at the conference IPDPS '22.

Memo Lab Wuhan, China

Research Intern 06/2021 – 03/2022

- Implemented consensus "hotstuff", fixed some practical problems out of the paper version, achieved higher performance and non-rollback consensus by introducing lightweight optimizations.
- Designed and implemented interfaces of "Sparse Merkle Tree" for state transition and validation in state machines, optimized SMT's key-value structure to support safe multi-version management.

Honors and Awards

- Excellent Thesis Award (outstanding Masters' theses, Huazhong Univ. of Sci. and Tech.) 2022
- Bronze Award of China International College Students' Internet+ Competition (graduate group) 2021
- Academic Scholarship (Huazhong Univ. of Sci. and Tech.) 2021
- Outstanding Graduates (Huazhong Univ. of Sci. and Tech.) 2019

Academic Service

International Journal Reviewer: Computer Communications