

HOU-WAN LONG

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EDUCATION

The Chinese University of Hong Kong	Hong Kong
• B.Sc. in Risk Management Science (expected May 2026)	<i>September 2022 - Present</i>
• Core Course Modules: Statistics, Finance and Computer Science	

RESEARCH INTEREST

Blockchain Mechanism Design, Decentralized Finance, Token Economics

PUBLICATIONS

Journals
• X. Zhao, H.-W. Long , Y.-W. Si, (2024), Mitigating Blockchain extractable value (BEV) threats by Distributed Transaction Sequencing in Blockchains, Journal of Digital Communications and Networks (JCR Q1, Minor Revision)
• J. Sun, H.-W. Long , Z. Fang, A El Saddik, W. Cai, (2024), Contract Design for SCaaS with Multi-dimensional Private Information, IEEE Transactions on Computational Social Systems (JCR Q1)
• X. Zhao, G. Zhang, H.-W. Long , Y.-W. Si, (2024), Verkle Tree-Based Dynamic Transaction Storage Strategies for Minimizing the Volatility of Block Incentives, Decision Support Systems (JCR Q1)
Conference Proceedings
• H.-W. Long , N.-M. Wong, W. Cai (2025), Bridging Culture and Finance: A Multimodal Analysis of Memecoins in the Web3 Ecosystem, ACM International World Wide Web Conference (Short Paper Track, Accepted)
• H.-W. Long , Y.-W. Si, (2024), Token Fungibility Duality: Technical and Graphical Analysis on 404 Standards, IEEE International Conference on Blockchain (Acceptance Rate=18.89%)
• H.-W. Long , X. Zhao, Y.-W. Si, (2023), Dynamic Mining Interval to Improve Blockchain Throughput, IEEE International Conference on Big Data (Acceptance Rate=17.4%)

RESEARCH EXPERIENCE

University of Washington Decentralized Computing Laboratory	Washington State
Research Assistant (remote)	<i>September 2023 - December 2023</i>
• Proposed the Smart Contract-as-a-Service (SCaaS) paradigm to enhance the reusability and composability of smart contracts, addressing redundancy, development costs, and security risks.	
• Developed a reputation filter using on-chain transaction data and formulated multi-dimensional contracts to incentivize developers, optimizing foundation utility.	
Data Analytics and Collaborative Computing Laboratory, University of Macau	Macao
Research Assistant	<i>March 2023 - May 2024</i>
• Assessed the accuracy of various time series similarity functions for source dataset selection in transfer learning.	
• Introduced a method for measuring domain discrepancy using Gramian Angular Field (GAF), improving similarity function performance.	
• Designed a Dynamic Mining Interval strategy to address the low-throughput issue, conducting blockchain propagation network simulations for robustness.	

HONOURS AND AWARDS

• Reaching Out Award by New Asia College, The Chinese University of Hong Kong	<i>May 2023</i>
• Student Travel Award by Institute of Electrical and Electronics Engineers (IEEE)	<i>November 2023</i>
• Research Studentship by Department of Statistics, The Chinese University of Hong Kong	<i>December 2023</i>
• Dean's List by Department of Statistics, The Chinese University of Hong Kong	<i>July 2024</i>

SKILLS

Programming Libraries:	Pytorch, Pandas, Numpy
Languages:	English (fluent), Cantonese (native), Mandarin (native)