

PhD student in the Department of Computer Science at Hong Kong Baptist University with experience in designing and implementing various high-performance, secure database and blockchain systems.

PROFESSIONAL EXPERIENCE	<b>Hong Kong Baptist University</b> <b>Ph.D. Candidate</b> • Advisor: Prof. Jianliang Xu • Designed novel algorithms for data federation to support efficient and secure query processing in a wide range of systems. • Resulted to research paper published in top-tier and conferences.	Hong Kong Sep 2021 – Present
	<b>Huazhong University of Science and Technology</b> <b>Core Member</b> • Design a fast consensus algorithm of blockchain combining SDN, dPOS and PBFT consensus algorithm. • Build a practical blockchain system for ASTRI as a integrity-assured record for their public distributed database.	Wuhan, China May 2019 – Feb 2020
	<b>Huazhong University of Science and Technology</b> <b>Core Member</b> • Research and implement the Algorand consensus algorithm to verify its feasibility for ASTRI's BFC 2.0 system.	Wuhan, China Oct 2019 – Apr 2021
EDUCATION	<b>Hong Kong Baptist University</b> Ph.D. in Computer Science Advisor: Prof. Jianliang Xu	Hong Kong Sep 2021 – Present
	<b>Huazhong University of Science and Technology</b> Bachelor of Engineering in Electronics & Information Engineering	Wuhan, China Sep 2017 – Jun 2021
SKILLS	<b>Programming</b> Rust, C/C++, Golang, Java, Python, Matlab, $\LaTeX$ , Bash <b>Tools</b> Docker, Vim, Git, macOS, Linux <b>Languages</b> English, Mandarin	
RESEARCH INTERESTS	• Oblivious query processing for data federation and outsourcing cloud computing. • Scalable secure query processing for vector database based on Trusted Execution Environment.	
SELECTED PUBLICATIONS	1. <b>Z. Xinyi</b> , W. Qichen, X. Cheng, P. Yun, and J. Xu, "FedKNN: Secure federated k-nearest neighbor search," in <i>Proceedings of the 2024 ACM SIGMOD International Conference on Management of Data (SIGMOD '24)</i> , Santiago, Chile, Jun. 2024, <i>Full Paper</i> .	
AWARDS	• College Academic Excellence Scholarship, Huazhong University of Science and Technology • First Prize of ADI SDR Cup, Huazhong University of Science and Technology & ADI • Excellent Teaching Assistant Performance Award, Hong Kong Baptist University • RPg Research Performance Award, Hong Kong Baptist University • ACM SIGMOD 2024 Student Travel Award	2018, 2021 2019 2022, 2023 2024 2024