電腦科學系
Department of
Computer Science

香港城市大學
City University of Hong Kong

COMPUTER SCIENCE COLLOQUIUM

ZebraLancer: Private and Anonymous Decentralized Crowdsourcing Atop Open Blockchain

SPEAKER **Prof TANG Qiang**

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DATE 7 January 2019(Monday)
TIME 3:00 pm - 4:00 pm
VENUE G7315, 7th Floor, Green Zone
Yeung Kin Man Academic Building
City University of Hong Kong
83 Tat Chee Avenue
Kowloon Tong

ABSTRACT

We design and implement the first private and anonymous decentralized crowdsourcing system ZebraLancer. It realizes the fair exchange (i.e. security against malicious workers and dishonest requesters) without any third-party arbiter. More importantly, it overcomes two fundamental challenges of decentralizing crowdsourcing, i.e. data leakage and identity breach. We also implemented our protocol for a common image annotation task and deploy it in a test net of Ethereum. The experiment results show the applicability of our protocol and highlight subtleties of tailoring the protocol to be compatible with the existing real-world open blockchain.

BIOGRAPHY

Prof Qiang Tang is currently an assistant professor at New Jersey Institute of Technology (NJIT), and also the director of JD-NJIT-ISCAS joint blockchain lab. Before joining NJIT, he was a postdoctoral research associate at the Initiative of Cryptocurrency and Contracts (IC3) at Cornell University, and he obtained his Ph.D. from the University of Connecticut. Prof Tang's research interests spans various topics of cryptography and blockchain technology. His research results appeared mostly in top crypto/security/distributed system venues including CRYPTO, EUROCRYPT, ASIACRYPT, CCS and more. His research was supported by NSF, DoE, JD.com, and several blockchain foundations including Protocol Labs which invented IPFS. Prof Tang was the founding co-chair of IEEE SMC Technical Committee on blockchain and has been invited as expert reviewer for various prestigious grants for funding agencies from Canada, Hong Kong and China. Prof Tang has been invited to testify as academia representative at NJ State Congress for blockchain policies, and also a private forum for Federal policy regarding Encryption, Surveillance and Transparency.

All are welcome!