

Luu The Loi (Loi Luu)

CONTACT INFORMATION	KyberNetwork Pte Ltd. #09-16, Soho 1 building, 6 Eu Tong Sen st. Singapore 059817	Phone: (+65) 93443602 Web: http://www.comp.nus.edu.sg/~loiluu E-mail: loiluu@kyber.network
BACKGROUND	I am a co-founder and CEO of KyberNetwork, a decentralized exchange for crypto tokens. I am also finishing my PhD program in Computer Science at National University of Singapore. My research interests are cryptocurrency and consensus protocols, but I am also broadly interested in research problems in Security and Distributed System.	
EDUCATION	<ul style="list-style-type: none">• National University of Singapore, Singapore Ph.D., Computer Science, Fall 2014 - Present<ul style="list-style-type: none">• <i>Thesis</i>: “Towards decentralized and scalable blockchain protocols”• <i>Advisor</i>: Dr. Prateek Saxena• Univ. of Engineering and Technology, Vietnam National Univ., Hanoi, Vietnam B.S., Computer Science, Fall 2009-June 2013<ul style="list-style-type: none">• <i>GPA</i>: 3.62/4.0, Honor Programme, Highest Distinction	
PEER-REVIEWED PUBLICATION	<ol style="list-style-type: none">1. Loi Luu, Yaron Velner, Jason Teutsch, Prateek Saxena . SMARTPOOL: Practical Decentralized Pooled Mining. <i>The 26th USENIX Security Symposium (UsenixSec’17)</i> (Acceptance rate 16.28%).<ul style="list-style-type: none">• Launched as a community project.• Deployed on the main Ethereum network and has found over 100 blocks and counting.2. Loi Luu, Viswesh Narayanan, Chaodong Zheng, Kunal Baweja, Seth Gilbert, Prateek Saxena. A Secure Sharding Protocol For Blockchains. <i>The 23rd ACM Conference on Computer and Communications Security (CCS’16)</i> (Acceptance rate 16.5%).<ul style="list-style-type: none">• Commercialized and Deployed at an (undisclosed) financial institution in Aug 20163. Loi Luu, Duc-Hiep Chu, Hrishi Olickel, Prateek Saxena, Aquinas Hobor. Making Smart Contracts Smarter. <i>The 23rd ACM Conference on Computer and Communications Security (CCS’16)</i> (Acceptance rate 16.5%).<ul style="list-style-type: none">• The code is opensource and maintained by MelonPort.• The paper is well received by the community. See this Reddit post.• On the news: CoinDesk.4. Loi Luu, Jason Teutsch, Raghav Kulkarni and Prateek Saxena. Demystifying incentives in the consensus computer. <i>The 22nd ACM Conference on Computer and Communications Security (CCS’15)</i> (Acceptance rate 19.4%).<ul style="list-style-type: none">• <i>The paper has influenced the future design of Ethereum cryptocurrency. See this blog post.</i>• <i>Great discussion about the paper on Reddit.</i>5. Loi Luu, Ratul Saha, Inian Parameshwaran, Prateek Saxena and Aquinas Hobor. On Power Splitting Games in Distributed Computation: The Case of Bitcoin Pooled Mining, <i>The 28th IEEE Computer Security Foundations Symposium (CSF’15)</i> (Acceptance rate 34.3%).6. Loi Luu, Shweta Shinde, Prateek Saxena and Brian Demsky. A Model Counter for Constraints Over Unbounded Strings, <i>The 35th annual ACM SIGPLAN conference on Programming Language Design and Implementation (PLDI’14)</i> (Acceptance rate 18.1%).	

7. [Loi Luu](#), . Smart Contracts Make Bitcoin Mining Pools Vulnerable. To appear at the *4th Workshop on Bitcoin and Blockchain Research (BITCOIN'17)*.

TALKS

1. SmartPool: Decentralized Mining Pools Using Smart Contracts, [European Ethereum Development Conference](#), Paris, February 2017.
2. Ethereum and Smart Contracts, [Winter School on Cryptocurrency and Blockchain Technologies](#), Shanghai, January 2017.
3. Making Smart Contracts Smarter, [Ethereum Devcon2](#), Shanghai, September 2016.
4. SCP: A Computationally-Scalable Byzantine Consensus Protocol, [ScalingBitcoin, Hong Kong](#), December 2015.
5. On the incentive compatibility of Bitcoin & Cryptocurrency, [ADSC Singapore](#), 30 July 2015.

PROFESSIONAL EXPERIENCE

1. Blockchain Advisors
Various startups including [Zilliqa](#), [Indorse](#), [Munchee](#), [Gifto](#)
2. Research Intern
Visa Research
June 2017 - August 2017
3. Cofounder, SmartPool project
SmartPool.io
Jan 2017 - Present
4. Research Intern
Ethereum Foundation
November 2016 - Jan 2017
5. Scientific advisor for several financial institutions
Anquan Capital
April 2016 - November 2016
6. Research Assistant
National University of Singapore
Jul 2013 - Aug 2014

SELECTED HONORS AND AWARDS

- **Dean's Graduate Research Excellence Award** 2017
NUS School of Computing.
- **Microsoft Research Asia Graduate Fellowship** 2016
- **President Graduate Fellowship** 2014-Present
National University of Singapore.
- **Distinguished Academic Achievement Award** 2013
Vietnam National University (Awarded to the best students from the college).
- **Best Thesis Award** 2013
Vietnam National University, (Awarded to the best 5 student theses from the college).
- **GE Foundation Scholar Leadership** 2010
(Awarded by General Electric Foundation to the best 10 students in Vietnam).
- **Third Prize ACM-ICPC Asian Regional Contest, Vietnam** 2010
- **Third Prize National Olympiad in Informatics for Students, Vietnam** 2008

REFERENCES

Dr. Prateek Saxena (advisor)
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Dr. Aquinas Hobor (collaborator)
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