Souray Das

PhD Candidate Computer Science, UIUC

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RESEARCH Interests Cryptography, Blockchain and Distributed Algorithms

EDUCATION University of Illinois at Urbana Champaign

Ph.D. Student, Computer Science, August 2019 - May 2024 (expected)

• Advisor: Ling Ren

Indian Institute of Technology Delhi, India

B.Tech., Computer Science and Engineering, 2014 - 2018

• Dissertation: "Scaling Smart Contracts in Permissionless Blockchain"

• Advisor: Vinay Ribeiro

Honors and Awards Suresh Chandra Memorial Award for Best IITD-CSE B.Tech. Project, 2018.

Professional Experience IIT Bombay, India. Research Assistant.

National University of Singapore, Singapore. Research Intern.

Qualcomm Bangalore, India. Interim Software Developer.

Loughborough University, UK. Visiting Research Student,

May 2016 - July 2016

Publications

Nitin Awathare, <u>Sourav Das</u>, Vinay Joseph Ribeiro, and Umesh Bellur. Renoir: Accelerating Block Validation in Blockchains using State Caching, In proceedings of 12th ACM/SPEC International Conference on Performance Engineering (ICPE), April 2021.

Sourav Das, Vinay J. Ribeiro, Abhijeet Anand. YODA: Enabling computationally intensive contracts on blockchains with Byzantine and Selfish nodes. In the Proceedings of the 30th Network and Distributed System Security Symposium(NDSS), Feb 2019.

Sourav Das, Aashish Kolluri, Prateek Saxena, Hifeng Yu. On The Security of Blockchain Consensus Protocols. In Proceedings of the International Conference on Information Systems Security (*Invited paper) (ICISS), Dec 2018.

Sourav Das, Alok Choudhary, Jenny Harding. An insight into Corporate Social Responsibility Reports: A Text mining Approach. In proceedings of the 3rd International Conference of Green Supply Chain, (ICGSC) London 2016.

PRE-PRINTS

<u>Sourav Das</u>, Vinith Krishnan, and Ling Ren. Efficient Cross-Shard Transaction Execution in Sharded Blockchains. arXiv preprint arXiv:2007.14521, 2020 (*Under Review*).

Sourav Das, Nitin Awathare, Ling Ren, Vinay Joseph Ribeiro, and Umesh Bellur. Better Late Than Never; Scaling Computation in Blockchains by Delaying Execution. arXiv, pages arXiv–2005, 2020 (*Under Review*).

Sourav Das, Samuel Wadaj, Kolin Paul, Umesh Bellur, and Vinay Joseph Ribeiro. Airmed: Efficient Self-Healing Network of Low-End Devices. arXiv preprint arXiv:2004.12442, 2020 (*Under Review*).

Professional Services

External-reviewer

- 2021: Financial Cryptography
- 2020: CCS, STOC, Stanford Blockchain Conference
- 2019: ASIACRYPT

RELEVANT COURSES.

- Online: Lattices, LWE, and Post-Quantum Cryptography (CS 294-168, MIT and UCB);
- UIUC: Quantum Information Processing; Applied Cryptography; Random Processes; Computational Complexity; Special Topics in Cryptography; Secure Processor Design;
- IIT Delhi: Advanced Computer Networks, Coding in Distributed System, Compiler Design, Numerical Algorithms, Internet of Things, Machine Learning.