Yash Pote

Ph.D. Candidate
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EDUCATION

Ph.D. School of Computing, National University of Singapore, 2019-

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

RESEARCH INTEREST

My research interests are distribution testing and formal methods. Specifically, I want to explore and apply the theory of distribution testing to build faster verification tools for real-world distributions, such as samplers and generative models. More generally, I am interested in the use of formal methods (like combinatorial solving) in machine learning.

PUBLICATIONS

Testing

2024 "Testing Self-Reducible Samplers", *AAAI*
Rishiraj Bhattacharya, Sourav Chakraborty, Yash Pote, Uddalok Sarkar, and Sayantan Sen.

2023 "Testing Self-Reducible Samplers", *AAAI*
Rishiraj Bhattacharya, Sourav Chakraborty, Yash Pote, Uddalok Sarkar, and Sayantan Sen.

2022 "On Scalable Testing of Samplers", *NeurIPS* (Paper, Code).
Yash Pote and Kuldeep S. Meel

2021 "Testing Probabilistic Circuits", *NeurIPS* (Paper, Code).
Yash Pote and Kuldeep S. Meel

2020 "On Testing of Samplers", *NeurIPS*. (Paper, Code).
Kuldeep S. Meel, Yash Pote, and Sourav Chakraborty

Combinatorial Solving

2021 "Partition Function Estimation: A Quantitative Study", *IJCAI (Survey)*.
(Paper, Slides, Data)
Durgesh Agrawal, Yash Pote, and Kuldeep S. Meel

2019 "Phase Transition Behavior of Cardinality and XOR Constraints", *IJCAI*.
(Paper, Slides, Code).
Yash Pote, Saurabh Joshi, and Kuldeep S. Meel

DNA Data Storage

2023 "Efficiently Supporting Hierarchy and Data Updates in DNA Storage", *MICRO* (Paper).
Puru Sharma, Cheng-Kai Lim, Dehui Lin, Yash Pote, and Djordje Jevdjic.

2022 "Managing Reliability Bias in DNA Storage", *ISCA* (Paper).
Dehui Lin, Yasamin Tabatabaee, Yash Pote, Djordje Jevdjic

Manuscripts in Preparation

2023 "Distance Estimation of High Dimensional Samplers with Subcube Conditioning" (Paper).
Gunjan Kumar, Kuldeep S. Meel, and Yash Pote.

2024 "Simpler and Faster Approximate Counting in the Low-Accuracy Regime"
Jiong Yang, Aaryan Gupta, Kuldeep S. Meel, and Yash Pote

TEACHING EXPERIENCE

National University of Singapore

CS 4244: Knowledge Representation and Reasoning (Teaching Assistant-Spring 2019, 20, 23)

CS 4269/CS 5469: Fundamentals of Logic in Computer Science (Teaching Assistant-Winter 2019)

CS 4218: Software Testing (Lab Tutor-Spring 2021)

PROFESSIONAL EXPERIENCE

2022 Amazon AWS, Applied Science Intern in the Automated Reasoning Group
Cupertino, California, USA;

2017 Goldman Sachs, Summer Intern in the Global Securities Team
Bangalore, India;

SERVICE

Reviewer

Conferences NeurIPS(2021, 23), ICML(2021, 22, 23, 24), CAV(2023), ICLR(2023), PODS(2024)

RESEARCH VISITS

2021,2022 Visitor at the SAT program at the Simon's Institute for the Theory of Computing.

2023 Visited Clément Canonne at the School of Computer Science at The University of Sydney.

Updated February 2024