

Yash Pote

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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

- 2022 “On Scalable Testing of Samplers”, *NeurIPS* ([Paper](#)).
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.
- 2023 “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), CAV(2023), ICLR(2023)

RESEARCH VISITS

2021,2022 Visitor at the [SAT](#) program at the [Simon’s Institute for the Theory of Computing](#).

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