

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

Distribution Testing

- 2024 “Distribution Testing in the Real World: Application to Plagiarism Detection in Large Language Models”, *Under Submission*
Clement L. Canonne, Yash Pote, and Uddalok Sarkar
- 2024 “Distance Estimation for High-Dimensional Discrete Distributions”, *Under Submission* ([Paper](#)).
Gunjan Kumar, Kuldeep S. Meel, and Yash Pote.
- 2024 “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

Solving Combinatorial Problems

- 2024 “Towards Real-Time Approximate Counting” *Under Submission*
Jiong Yang, Kuldeep S. Meel, and Yash Pote
- 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

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

Conference Reviewer

AISTATS 2024
CAV 2023
ICLR 2023
ICML 2021, 22, 23, 24
NeurIPS 2021, 23, 24
PODS 2024

SELECTED TALKS

Towards Practical Distribution Testing ([Video](#))([Slides](#))
2023 SACT talk, University of Sydney.

2024 A&C Seminar, University of Waterloo.

2024 Verification Seminar, Oxford University.

2024 [Workshop on Local Algorithms](#), Sublinear Algorithm program, Simons Institute, Berkeley.

RESEARCH VISITS

2022 Participant at the [SAT](#) program at the [Simon's Institute for the Theory of Computing](#).

2023 Hosted by [Clément L. Canonne](#) at the School of Computer Science at The University of Sydney.

2024 Attended the , part of the [Sublinear Algorithms](#) at Simon's.

2024 Hosted by [Prof. Marta Z. Kwiatkowska](#) at the University of Oxford

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