Yash Pote

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EMPLOYMENT

Postdoc   School of Computing, National University of Singapore, 2025-
            (Mentor: Jonathan Scarlett)

EDUCATION

Ph.D.   School of Computing, National University of Singapore, 2019-25
            (Advisor: Kuldeep S. Meel)

B.Tech.   Computer Science and Engineering, IIT-Guwahati, 2014-18

RESEARCH INTEREST

I'm broadly interested in the theory and practice of probabilistic formal methods. Most of my work is on developing techniques in distribution testing with the aim of faster verification tools for real-world distributions, such as samplers, generative models, and bandits. More generally, I am interested in the use of formal methods (like combinatorial solving) in machine learning.

PUBLICATIONS

Ⓡ indicates random author ordering

Distribution Testing

2025   Zero-Shot Attribution for Large Language Models: A Distribution Testing Approach, *Under Submission*.
        Clemént L. Canonne, Yash Pote, and Uddalok Sarkar

2025   Learning Probabilistic Temporal Logic Specifications for Stochastic Systems, *IJCAI*. (Code).
        Rajarshi Roy, Yash Pote, David Parker and Marta Kwiatkowska
        Invited to the Workshop on User-Aligned Assessment of Adaptive AI Systems

2025   Distance Estimation for High-Dimensional Discrete Distributions, *AISTATS*.
        Gunjan Kumar Ⓡ Kuldeep S. Meel Ⓡ 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* (Code).
        Yash Pote Ⓡ Kuldeep S. Meel

2021	Testing Probabilistic Circuits, *NeurIPS* (Code).
	Yash Pote ⓡ Kuldeep S. Meel
2020	On Testing of Samplers, *NeurIPS*. (Code).
	Kuldeep S. Meel ⓡ Yash Pote ⓡ Sourav Chakraborty

Solving Combinatorial Problems

2025	Towards Real-Time Approximate Counting, *AAAI*.
	Yash Pote ⓡ Kuldeep S. Meel, ⓡ Jiong Yang
	Selected for oral presentation (4.6% of submitted papers)
2021	Partition Function Estimation: A Quantitative Study, *IJCAI (Survey)*.
	(Slides, Data)
	Durgesh Agrawal, Yash Pote, and Kuldeep S. Meel
2019	Phase Transition Behavior of Cardinality and XOR Constraints, *IJCAI*.
	(Slides, Code).
	Yash Pote, Saurabh Joshi, and Kuldeep S. Meel

DNA Data Storage

2023	Efficiently Supporting Hierarchy and Data Updates in DNA Storage, *MICRO*.
	Puru Sharma, Cheng-Kai Lim, Dehui Lin, Yash Pote, and Djordje Jevdjic.
2022	Managing Reliability Bias in DNA Storage, *ISCA*.
	Dehui Lin, Yasamin Tabatabaee, Yash Pote, Djordje Jevdjic

TEACHING EXPERIENCE

National University of Singapore

CS 4244	Knowledge Representation and Reasoning (2019, 20, 23)
	Teaching Assistant
CS 5469	Fundamentals of Logic in Computer Science (2019)
	Teaching Assistant
CS 4218	Software Testing (2021)
	Lab Tutor

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	2024,25
CAV	2023
ICLR	2023
ICML	2021, 22, 23, 24
NeurIPS	2021, 23, 24, 25
PODS	2024

SELECTED INVITED TALKS

Towards Practical Distribution Testing (Video)(Slides)

2024 A&C Seminar, University of Waterloo.

2024 Verification Seminar, Oxford University.

2024 Workshop on Local Algorithms(WOLA), Simons Institute, Berkeley

2023 SACT talk, University of Sydney.

EXTENDED RESEARCH VISIT

2024 WOLA at the Sublinear Algorithms program, Simon's Institute for the Theory of Computing.

2024 Hosted by Prof. Marta Z. Kwiatkowska at the University of Oxford

2023 Hosted by Clément L. Canonne at the School of Computer Science at The University of Sydney.

2022 Participant at the SAT program at the Simon's Institute for the Theory of Computing.

MISC.

2021 Cofounder of the Graduate Students Association of Computing (Coordinator from 2021-2023)

Updated May 2025