# 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. I work on the development of techniques in distribution testing with a view towards 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

ⓡ indicates random author ordering

### Distribution Testing

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

2025    Learning Probabilistic Temporal Logic Specifications for Stochastic Systems, *IJCAI*. (Code).
        Rajarshi Roy, <u>Yash Pote</u>, 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 ⓡ <u>Yash Pote</u>.

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

2022    On Scalable Testing of Samplers, *NeurIPS* (Code).
        <u>Yash Pote</u> ⓡ Kuldeep S. Meel

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

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

### Solving Combinatorial Problems

2025    Towards Real-Time Approximate Counting, *AAAI*.
Yash Pote (r) Kuldeep S. Meel, (r) Jiong Yang
**Selected for oral presentation** (top 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

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|---|---|
| *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