

# 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

- 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](#)).  
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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