Jiong Yang

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Education

Present — **Georgia Institute of Technology** – Atlanta, USA
PhD in Computer Science
Advisor: Kuldeep S. Meel

2016 – 2020 — **Xi'an Jiaotong University** – Xi'an, China
BEng in Computer Science (Honors)
GPA: 4.02 / 4.3, Rank: 1 / 31.

Research Interests

My research advances automated reasoning from both theoretical and practical perspectives, with a focus on developing efficient, trusted, and practical automated reasoning techniques.

Keyword — Model counting, satisfiability, verification of neural networks.

Honors and Awards

2024 — CAV Distinguished Paper Award

2023 — CAV Distinguished Paper Award

2025 — SAT Best Student Paper Runner-Up Award

2024 — SAT Best Student Paper Runner-Up Award

2024 — 1st place in All Tracks of Model Counting Competition

2021-2024 — President's Graduate Fellowship
Highest university fellowship for graduate students

2018 — ACM-ICPC Asia Regional Contest Silver Medal

2017-2019 — National Scholarship
China's highest national honor for undergraduates

Conference Publications

2023 **Rounding Meets Approximate Model Counting**
Jiong Yang and Kuldeep S. Meel.
International Conference on Computer Aided Verification (CAV)
Distinguished Paper Award

2024 **Formally Certified Approximate Model Counting**
Yong Kiam Tan*, Jiong Yang*, Mate Soos, Magnus O. Myreen, and Kuldeep S. Meel.
International Conference on Computer Aided Verification (CAV)
* equal contribution
Distinguished Paper Award

2024 **Quantum Circuit Mapping Based on Incremental and Parallel SAT Solving**
Jiong Yang, Yaroslav A. Kharkov, Yunong Shi, Marijn Heule, and Bruno Dutertre.
International Conference on Theory and Applications of Satisfiability Testing (SAT)
Best Student Paper Runner-Up Award

2025 **Efficient Certified Reasoning for Binarized Neural Networks**
Jiong Yang, Yong Kiam Tan, Mate Soos, Magnus O. Myreen, and Kuldeep S. Meel.
International Conference on Theory and Applications of Satisfiability Testing (SAT)
Best Student Paper Runner-Up Award

2025 **Towards Real-Time Approximate Counting**
Yash Pote ⓡ Kuldeep S. Meel ⓡ Jiong Yang. (ⓡ random order)
Annual AAAI Conference on Artificial Intelligence (AAAI) [Oral]

2023 **Explaining SAT Solving Using Causal Reasoning**
Jiong Yang, Arijit Shaw, Teodora Baluta, and Kuldeep S. Meel.
International Conference on Theory and Applications of Satisfiability Testing (SAT)

2022 **Projected Model Counting: Beyond Independent Support**
Jiong Yang, Supratik Chakraborty, and Kuldeep S. Meel.
International Symposium on Automated Technology for Verification and Analysis (ATVA)

2021 **Engineering an Efficient PB-XOR Solver**
Jiong Yang and Kuldeep S. Meel.
International Conference on Principles and Practice of Constraint Programming (CP)

2020 **Learning Formatting Style Transfer and Structure Extraction for Spreadsheet Tables with a Hybrid Neural Network Architecture**
Haoyu Dong, Jiong Yang, Shi Han, and Dongmei Zhang.
International Conference on Information and Knowledge Management (CIKM)

Journal Publications

2025 **Rounding Meets Approximate Model Counting**
Jiong Yang and Kuldeep S. Meel.
Formal Methods in System Design

Talks

Conference talk SAT 2025, AAAI 2025, SAT 2024, CAV 2023, SAT 2023, ATVA 2022, CP 2021.

Workshop talk Counting, Sampling, and Synthesis 2025; Explanations with Constraints and Satisfiability 2025; Counting, Sampling, and Synthesis 2024; Counting and Sampling 2023.

Feb 2025 **Scalable and Trustworthy Approximate Counting**
Georgia Tech PLSE Seminar, Atlanta, USA.

Dec 2024 **Quantum Circuit Mapping Based on Incremental and Parallel SAT Solving**
SG Programming Languages Summit, Singapore.

Apr 2024 **Formally Certified Approximate Model Counting**
UoT Modeling seminar, Toronto, Canada.

Aug 2023 **Rounding Meets Approximate Model Counting**
NUS PLSE seminar, Singapore.

Apr 2023 **Explaining SAT Solving Using Causal Reasoning**
Extended Reunion: Satisfiability, Simons Institute, UC Berkeley, USA.

Experience

Summer 2024 **Amazon Web Services** – San Francisco Bay Area, USA
Summer 2023 Applied Scientist Intern in Automated Reasoning Group
Summer 2022 Manager: Bruno Dutertre

Spring 2024 **University of Toronto** – Toronto, Canada
Visiting Graduate Student

Spring 2023 **Simons Institute** – UC Berkeley, USA
Visiting Graduate Student in Extended Reunion: Satisfiability

Summer 2019 **Microsoft Research** – Beijing, China
Research Intern in Data Knowledge Intelligence Group
Mentor: Haoyu Dong

Teaching Experience

Georgia Institute of Technology – Atlanta, USA
Teaching Assistant
Fall 2025 Automata and Complexity (CS4510)

National University of Singapore – Singapore
Teaching Assistant
Spring 2023 Knowledge Representation and Reasoning (CS4244)
Fall 2021 Introduction to Artificial Intelligence (CS3243)

Xi'an Jiaotong University – Xi'an, China
Teaching Assistant
Fall 2019 Programming Fundamentals

Service

Artifact Evaluation Committee: CAV 2025, TACAS 2025, CAV 2024, TACAS 2024.

Reviewer: AAAI 2026, NeurIPS 2025, ICML 2025, AISTATS 2025, ICLR 2025, CP 2024, NeurIPS 2024, NeurIPS 2023, CAV 2023, SAT 2023, NeurIPS 2022.

Webmaster: SAT 2022.