

Jialiang (Jack) Sun

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SUMMARY

I am a second-year Ph.D. student in Computer Science at the University of Toronto, supervised by Prof. Kuldeep Meel. My primary research interest is AI for mathematics, which lies at the intersection of AI and formal methods. Specifically, I develop neurosymbolic frameworks for automated theorem proving, autoformalization, and verified code generation by synergizing symbolic methods and LLMs. In the long term, my research aims to make research-level mathematical reasoning accessible beyond human level.

EDUCATION

Doctor of Philosophy, Computer Science

2023.09 - 2027.09

- University of Toronto, Canada
- Supervisor: Prof. Kuldeep Meel
- Area of Interest: AI, Machine Learning, Automated Reasoning

Honours Bachelor of Science, Computer Science

2021.09 - 2023.06

- Area of Study: Computer Science (Major), Mathematics (Minor), and Statistics (Minor).
- Cumulative GPA: 3.99/4.00
- Dean's List Scholar for 2021-2023 academic terms.

AWARDS

Ontario Graduate Scholarship (OGS)

2024.06

- OGS is a merit-based scholarships to Ontario's best graduate students in all disciplines of academic study with a value of CA\$15,000 for one year.

SELECTED PUBLICATIONS

Autoformalizing Euclidean Geometry

ICML 2024

Logan Murphy*, Kaiyu Yang*, Jialiang Sun, Zhaoyu Li, Anima Anandkumar, Xujie Si
International Conference on Machine Learning, 2024

A Survey on Deep Learning for Theorem Proving

COLM 2024

Zhaoyu Li, Jialiang Sun, Logan Murphy, Qidong Su, Zenan Li, Xian Zhang, Kaiyu Yang, Xujie Si
Conference on Language Modeling, 2024

A Versatile Formal Plane Geometry System in Python

CAV 2025

Jialiang Sun*, Zhaoyu Li*, Hangrui Bi*, Zenan Li, Kaiyu Yang, Xujie Si
International Conference on Computer Aided Verification, 2025

Enumerate–Conjecture–Prove: Formally Solving Answer Construction Problems in Math Competitions

In Submission

Jialiang Sun, Yuzhi Tang, Ao Li, Chris Maddison, Kuldeep Meel
In Submission to *Conference on Neural Information Processing Systems, 2025*

SERVICES

Reviewer

2024.02 - Now

- Neural Information Processing Systems (Neurips 2024)
- Transactions on Machine Learning Research (TMLR 2024)
- International Conference on Learning Representations (ICLR 2025)
- International Conference on Machine Learning (ICML 2025)

TEACHING

Teaching Assistant

- Introduction to Databases (CSC343)
- Introduction to Artificial Intelligence (CSC384)

2023 Fall

2024 Winter