YUN-RONG (LAUREN) LUO

✉ yunrong@umich.edu | 🌐 https://lauren-yrluo.github.io

RESEARCH INTEREST

Formal methods and verification, programming languages, model checking and satisfiability, interactive theorem proving

EDUCATION

University of Michigan, Ann Arbor   Ann Arbor, MI, USA
Ph.D. Candidate in Computer Science and Engineering   *08/2023-Present*
- Research Advisor: Prof. Manos Kapritsos

National Taiwan University (NTU)   Taipei, Taiwan
M.S. in Electronics Engineering   *09/2021-2023*
- Research Advisor: Prof. Jie-Hong Roland Jiang

B.S. in Electrical Engineering   *09/2017-06/2021*

SELECTED PUBLICATIONS

Conference

1. **Yun-Rong Luo**, Aman Goel, Karem Sakallah, "QSM-Cutoff: Systematic Derivation of Quantified Cutoff Formulas for Distributed Protocols.", 2025 International Conference on Computer Aided Verification (CAV), 2025 [link]
2. Che Cheng*, **Yun-Rong Luo***, Jie-Hong Roland Jiang, "Knowledge Compilation for Incremental and Checkable Stochastic Boolean Satisfiability." 2024 International Joint Conference on Artificial Intelligence (IJCAI), 2024 [link]
3. Yu-Neng Wang*, **Yun-Rong Luo***, Po-Chun Chien*, Ping-Lun Wang, Hao-Ren Wang, Wan-Hsuan Lin, Jie-Hong Roland Jiang, Chung-Yang Ric Huang, "Compatible Equivalence Checking of X-Valued Circuits." 2021 IEEE/ACM International Conference On Computer Aided Design (ICCAD), 2021 [link]

Journal

1. **Yun-Rong Luo***, Che Cheng*, Jie-Hong Roland Jiang, "A Resolution Proof System for Dependency Stochastic Boolean Satisfiability." Journal of Automated Reasoning, 2023 [link]

HONORS AND AWARDS

2021 Research Creativity Award, Ministry of Science and Technology of Taiwan (awarded to 200/3000+ research works)
2020 1st Place, Problem A, 2020 CAD Contest at ICCAD (186 teams competed in 3 problems)
2020 College Student Research Scholarship, Ministry of Science and Technology of Taiwan

TEACHING EXPERIENCE

EECS 376: Foundations of Computer Science (UMich)
Graduate Student Instructor   *05/2025-06/2025*
EECS 270: Introduction to Logic Design (UMich)
Graduate Student Instructor   *08/2024-04/2025*
Logic Synthesis and Verification (NTU)
Teaching Assistant   *09/2021-01/2022*

WORK EXPERIENCE

Cadence Design Systems   Hsinchu, Taiwan
R&D Intern, Formal Verification Team   *07/2020-09/2020*

SKILLS

Languages Mandarin (Native), English (Proficient, TOEFL: 114/120)
Programming Languages C/C++, Python, OCaml, Verilog
Tools Shell scripting, Git, LaTeX
Verification Tools Dafny, SAT/SMT solvers,