

# Caleb Schultz Kisby

## RESEARCH INTERESTS

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- Logical foundations of artificial intelligence
- Dynamic logics for belief revision and learning
- Neuro-symbolic AI
- Neural network verification and alignment

## EDUCATION

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- 2018 – PRESENT    **PhD Candidate**, Indiana University, Bloomington, USA  
PhD in Computer Science (in progress), minor in Logic.  
Jointly advised by Larry Moss and Saúl A. Blanco
- 2014 – 2018    **Bachelors**, University of South Carolina, Columbia, USA  
BSCS in Computer Science, BS in Mathematics, *Summa Cum Laude*

## HONORS AND AWARDS

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- MAR 2024    Recipient of the SCALE Ambassador Award, for excellence in research during the SCALE Trusted AI Project, US Department of Defense
- MAY 2022    “The Logic of Hebbian Learning” nominated for Best Student Paper at FLAIRS 2022
- AUG 2019    Recipient of the Paul Purdom Fellowship, awarded to one outstanding PhD student each year with interests in theoretical computer science, Indiana University
- APR 2018    Outstanding Senior in Computer Science, USC Columbia
- APR 2018    Recipient of the Jeong S. Yang Award for Excellence in Undergraduate Mathematics, USC Columbia
- JAN 2017    Recipient of the Magellan Scholar Undergraduate Research Grant, USC Columbia

## INVITED TALKS

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- SEP 2024    Seminar on Logic and Interactive Rationality, ILLC, University of Amsterdam, Online  
*The Modeling Power of Neural Networks*
- JAN 2024    1<sup>st</sup> General Algebra, Logic & AI Workshop, Chapman University, Orange, USA  
*Logical Dynamics of Neural Network Learning*

## SELECTED CONFERENCE TALKS

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- FEB 2024    AAAI Conference on Artificial Intelligence, Vancouver, Canada  
*Reduction Axioms for Iterated Hebbian Learning*
- MAY 2022    The International Florida AI Research Society Conference, Jensen Beach, USA  
*The Logic of Hebbian Learning*

## OTHER PROFESSIONAL ACTIVITIES

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- FEB 2024    Volunteer for the AAAI Conference on Artificial Intelligence, Vancouver, Canada
- NOV 2023    Reviewer for the AAAI Workshop on Neuro-Symbolic Learning and Reasoning in the era of Large Language Models
- JUL 2023    Participated in the Workshop on Neural-Symbolic Learning and Reasoning, Siena, Italy
- JUN 2023    Local Organizer for Algebra and Coalgebra in Computer Science (CALCO), & Mathematical Foundations of Programming Semantics (MFPS), Bloomington, USA
- SEP 2019    Reviewer for the Journal of Logic, Language, and Information