

Bishwamittra Ghosh

Research Interests

Fairness, interpretability, and explainability in machine learning
Formal verification of machine learning

Education

- 01.18–06.23 **Ph.D. in Computer Science**, *National University of Singapore*, Singapore.
(Expected) Thesis advisor: Dr. Kuldeep S. Meel
- 02.13–09.17 **BSc. in Computer Science and Engineering**, *Bangladesh University of Engineering and Technology*, Bangladesh.
Thesis advisor: Dr. Mohammed Eunus Ali

Publications

Conference Papers

- AAAI-22 Algorithmic Fairness Verification with Graphical Models
[Bishwamittra Ghosh](#), Debabrota Basu, Kuldeep S. Meel
- AAAI-21 Justicia: A Stochastic SAT Approach to Formally Verify Fairness
[Bishwamittra Ghosh](#), Debabrota Basu, Kuldeep S. Meel
- AAAI-20 A MaxSAT-based Framework for Group Testing
Lorenzo Ciampiconi, [Bishwamittra Ghosh](#), Jonathan Scarlett, Kuldeep S. Meel
- ECAI-20 Classification Rules in Relaxed Logical Form
[Bishwamittra Ghosh](#), Dmitry Malioutov, Kuldeep S. Meel
- AIES-19 IMLI: An Incremental Framework for MaxSAT-Based Learning of Interpretable Classification Rules
[Bishwamittra Ghosh](#), Kuldeep S. Meel
- VLDB-18 The Flexible Socio Spatial Group Queries
[Bishwamittra Ghosh](#), Mohammed Eunus Ali, Farhana M. Choudhury, Sajid Hasan Apon, Timos Sellis, Jianxin Li

Journal Papers

- JAIR-22 Efficient Learning of Interpretable Classification Rules
[Bishwamittra Ghosh](#), Dmitry Malioutov, Kuldeep S. Meel
- TSAS-21 Social-Spatial Group Queries with Keywords
Sajid Hasan Apon, Mohammed Eunus Ali, [Bishwamittra Ghosh](#), Timos Sellis

Professional Experiences

Conference Talks

AAAI-22, AAAI-21, AAAI-20, ECAI-20, CP-19, VLDB-19, IJCAI-19, AIES-19

Academic Reviewer

NeurIPS (2022, 2021), AAAI (2023, 2022), AIES (2022), TKDE (2020)

Research Intern

11.21–02.22 INRIA, Lille-Nord, France

06.21–08.21 Goldman Sachs, Singapore

03.20–06.20 Max Planck Institute For Software Systems, Kaiserslautern, Germany

Graduate Assistant

2018–2021 School of Computing, National University of Singapore

Lecturer

10.17–01.18 Department of CSE, United International University (UIU), Bangladesh

Technical Skills

Advanced Python, Solvers (SAT, MaxSAT, SSAT, SMT, ILP), \LaTeX
Intermediate TensorFlow, C/C++, Java

References

- Kuldeep S. Meel
Assistant Professor, School of Computing, National University of Singapore, Singapore
Email: meel+recos@comp.nus.edu.sg
- Daniel Neider
Professor, Carl von Ossietzky Universität Oldenburg, Germany
Email: daniel.neider@uol.de
- Debabrota Basu
Faculty, School, INRIA, Lille-Nord, France
Email: debabrota.basu@inria.fr