Bishwamittra Ghosh

Curriculum Vitae

Personal Details

Contact Address:
Utown residence, 36 College Ave East, North tower, #19-207C, Singapore 138600
Email: bishwa@comp.nus.edu.sg
Phone: +65 85990160
Date of Birth: 28 November 1995
Place of Birth: Satkhira, Bangladesh
Citizenship: Bangladesh

Research Interest

My research interest is in interpretable machine learning using different combinatorial optimization frameworks, for example, MaxSAT, MILP.

Education

National University of Singapore, Singapore 2018 - Present
Ph.D. candidate in Department of Computer Science

Bangladesh University of Engineering and Technology, Bangladesh 2013 - 2017
BSc. with Honors degree in Computer Science and Engineering

Research Experience

National University of Singapore, Singapore 2018 - Present

- Designed an incremental mini-batch training approach for learning interpretable classification rules in a MaxSAT-based framework
- Designed an efficient combinatorial framework for learning a generalization of CNF/DNF classification rules
- Formulated a MaxSAT-based framework for solving the combinatorial variant of group testing problem in collaboration with a Master's student
- Presented published works in AIES-19, IJCAI-19, VLDB-19, and CP-19

Bangladesh University of Engineering and Technology, Bangladesh 2016 - 2017

- Designed a flexible socio-spatial group query to rank groups in the socio-spatial graph based on the social, spatial and group attributes

Awards

- **NUS Research Scholarship**
  National University of Singapore
- **Academic Merit Scholarship**
  Dean's award,
  Bangladesh University of Engineering and Technology
- **Math Olympiad**
  National and regional winner in higher secondary, secondary, and junior levels
- **Scholarship**
  Board scholarship in HSC, SSC, junior, and primary

Publications

Publications are listed in reverse chronological order.

Journal papers

[J1] The Flexible Socio Spatial Group Queries
Bishwamittra Ghosh, Mohammed Eunus Ali, Farhana M. Choudhury, Sajid Hasan Apon, Timos Sellis, Jianxin Li
Proceedings of the VLDB Endowment (PVLDB), 2019

Conference papers

[C1] A MaxSAT-based Framework for Group Testing
Lorenzo Ciampiconi, **Bishwamittra Ghosh**, Jonathan Scarlett, Kuldeep S. Meel
Proceedings of AAAI, 2020

[C2] IMLI: An Incremental Framework for MaxSAT-Based Learning of Interpretable Classification Rules
Bishwamittra Ghosh, Kuldeep S. Meel
Proceedings of AAAI/ACM Conference on AI, Ethics, and Society (AIES), 2019

Workshop papers

[W1] Interpretable Classification Rules in Relaxed Logical Form
Bishwamittra Ghosh, Dmitry Malioutov, Kuldeep S. Meel
IJCAI workshop on XAI (Explainable Artificial Intelligence) and DSO (Data Science meets Optimization), 2019