Yeasir Rayhan

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EDUCATION

Purdue University West Lafayette, IN Ph.D. in Computer Science August 2021-Current

Advisor: Walid G. Aref

Bangladesh University of Engineering and Technology

Dhaka, Bangladesh B.Sc. in Computer Science & Engineering July, 2014 - October, 2018

Thesis: Efficient Scheduling of Generalized Group Trips in Road Networks

Advisor: Tanzima Hashem

RESEARCH INTEREST

Machine Learning for Database Systems, Spatio-Temporal Data Mining, Graph Representation Learning, AI for Climate

RESEARCH EXPERIENCE

Bangladesh University of Engineering and Technology

Dhaka, Bangladesh

Part-time Research Assistant, Dept. of CSE

January, 2021 - August, 2021

• I developed AIST, an Attention- based Interpretable Spatio Temporal Network for crime prediction, which can model the dynamic spatio-temporal correlations for a crime category based on past crime occurrences, external features (e.g., traffic flow and point of interest (POI) information) and recurring trends of crime. [Demo] [Code]

PUBLICATIONS

- Yeasir Rayhan, Tanzima Hashem. AIST: An Interpretable Attention-based Deep learning Model for Crime Prediction. In Arxiv, 2020
- Yeasir Rayhan, Tanzima Hashem, Roksana Jahan, Muhammad Aamir Cheema. Efficient scheduling of generalized group trips in road networks. In ACM Transactions on Spatial Algorithms and Systems (*TSAS*), 2019.

POSTERS

• Yeasir Rayhan, Tanzima Hashem, Roksana Jahan, Muhammad Aamir Cheema. Efficient scheduling of generalized group trips in road networks. In International Conference on Networking, Systems and Security (NSysS), 2019

ACADEMIC SERVICE

Conference Reviewer: NSysS (2020), APWEB-WAIM (2019, 2020), ICASERT (2019)

Organizing Committee Member: ICASERT (2019)

TEACHING EXPERIENCE

Purdue University, West Lafayette, IN

Graduate Teaching Assistant, Department of Computer Science

East West University, Dhaka, Bangladesh

Lecturer, Department of Computer Science and Engineering

Eastern University, Dhaka, Bangladesh

Lecturer, Department of Computer Science and Engineering

August, 2021 - Present

January, 2019 - July, 2021

October, 2018 - December, 2018

AWARDS & GRANTS

- Co-author of the proposal "Interpretable Spatio-Temporal Deep Learning Models for Safe Cities" and was awarded 5 *lakh* (*in BDT*) grant by the ICT Division, Bangladesh, 2020
- Regional Winner (Asia) in Computer Science, The Global Undergraduate Awards, 2019, for my undergraduate thesis. [Entry]

TECHNICAL SKILLS

Programming Languages: Python (PyTorch, Scikit-learn, NumPy, SciPy), Java, C/C++ **Tools/OS:** Android Studio, MySQL, Oracle, Firebase, LaTeX, Git; Windows, Linux