Yeasir Rayhan

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https://yeasirrayhanprince.github.io/

Education

2021 - 2026 (exp)	Ph.D. in Computer Science Purdue University Advisor: Walid G. Aref
2018	B.Sc. in Computer Science & Engineering Bangladesh University of Engineering and Technology (BUET) Advisor: Tanzima Hashem Thesis: Efficient Scheduling of Generalized Group Trips in Road Networks

Honors

2023	Travel Award, ACM SIGSPATIAL
2019	Regional Winner (Asia), The Global Undergraduate Awards (Computer Science)

Past Employment

May '23 - Jun '23	Intern Database Software Engineer ITTIADB, Bellevue, WA *keywords:* DB4ML, AI/ML embedded geospatial application
May '21 - May'23	Research Assistant Purdue University. Advisor: Walid G. Aref. *keywords:* HW-conscious DBMSes, SIMD, NUMA-awareness, DB4ML
Jan '21 - Aug '21	Research Assistant Bangladesh University of Engineering and Technology (BUET). Advisor: Tanzima Hashem. *keywords:* interpretability, spatio-temporal prediction, graph neural networks
Jan '19 - Aug '21	Lecturer Department of Computer Science and Engineering, East West University, Bangladesh
Oct '18 - Dec '18	Lecturer Department of Computer Science and Engineering, Eastern University, Bangladesh

Publications

SIGSPATIAL '23	Yeasir Rayhan and Walid G. Aref. SIMD-ified R-tree Query Processing and Optimization. In Proceedings of the 31st ACM International Conference on Advances in Geographic Information Systems.

EDBT '23	Yeasir Rayhan, Tanzima Hashem, Muhammad Aamir Cheema, Hua Lu, Mohammed Eunus Ali. An Efficient Approach for Indoor Facility Location Selection. In Proceedings of the 26th International Conference on Extending Database Technology.
TSAS '23	Yeasir Rayhan and Tanzima Hashem. AIST: An Interpretable Attention-Based Deep Learning Model for Crime Prediction. In Volume 9 of ACM Transactions on Spatial Algorithms and Systems.
TSAS '19	Yeasir Rayhan, Tanzima Hashem, Roksana Jahan, and Muhammad Aamir Cheema. 2019. Efficient Scheduling of Generalized Group Trips in Road Networks. In Volume 5 of ACM Transactions on Spatial Algorithms and Systems.

Preprints

Arxiv '22	Walid G. Aref, Ahmed M. Aly, Anas Daghistani, Yeasir Rayhan, Jianguo Wang, Libin Zhou. ILX: Intelligent "Location+X"Data Systems.

Teaching

Fall '23	Teaching Assistant, Purdue University CS448: Introduction To Relational Database Systems
Spring '22	Teaching Assistant, Purdue University CS 180: Problem Solving And Object-Oriented Programming
Fall '21	Teaching Assistant, Purdue University CS 180: Problem Solving And Object-Oriented Programming

Mentoring

Masters	Md. Shuvo (BUET), Anik Islam (BUET)
Undergrad	Nazia Afreen (BUET), Anisha Islam (BUET), Rittik Basak (BUET), Muhtasim Noor (BUET), An Sakib (BUET), Sultanul Arifin (BUET)

Grants

2020	Co-author of the proposal, Interpretable Spatio-Temporal Deep Learning Models for Safe Cities and was awarded 6000$ grant by the ICT Division, Bangladesh

Skills

PL	C/C++, Python , Java, Rust
ML Framework	PyTorch
DBMS	MySQL, PostgreSQL, MongoDB