

Y easir Rayhan

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<https://yeasirrayhanprince.github.io/>

Education

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|----------------|--|
| 2021 - current | 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

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

Past Employment

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|-------------------|--|
| May '23 - Jun '23 | Intern Database Software Engineer
ITTIADB, Bellevue, WA
<i>keywords:</i> DB4ML, AI/ML embedded geospatial application |
| May '21 - May'23 | Research Assistant
Purdue University. Advisor: Walid G. Aref.
<i>keywords:</i> HW-conscious DBMSes, SIMD, NUMA-awareness, DB4ML |
| Jan '21 - Aug '21 | Research Assistant
Bangladesh University of Engineering and Technology (BUET). Advisor: Tanzima Hashem.
<i>keywords:</i> 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

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|----------------|---|
| SIGSPATIAL '23 | Y easir Rayhan and Walid G. Aref. 2023. SIMD-ified R-tree Query Processing and Optimization. In Proceedings of the 31st ACM International Conference on Advances in Geographic Information Systems. |
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EDBT '23	Yasir 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	Yasir Rayhan and Tanzima Hashem. 2023. AIST: An Interpretable Attention-Based Deep Learning Model for Crime Prediction. In Volume 9 of ACM Transactions on Spatial Algorithms and Systems.
TSAS '19	Yasir 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, Yasir Rayhan, Jianguo Wang, Libin Zhou. ILX: Intelligent "Location+X" Data Systems.
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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

Skills

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