

Shovon Niverd Pereira

snp3941@mavs.uta.edu | +1 (817) 287-8950 | Arlington, TX
linkedin.com/in/shovon-niverd-pereira | github.com/PereiraMavs | pereiramavs.github.io

SUMMARY

PhD candidate in Computer Science (UT Arlington, expected Spring 2027) with a first-author IJCAI 2026 paper on data-free knowledge distillation for tabular machine learning. Research focuses on understanding what models learn and transferring that knowledge efficiently. 2+ years of industry experience as a Senior Software Engineer at Samsung R&D. Seeking research scientist roles.

EDUCATION

Ph.D. in Computer Science and Engineering, GPA 3.7/4.0 2022 – Expected Spring 2027
The University of Texas at Arlington | STEM Graduate Fellow | Dissertation Proposal in Progress

B.S. in Computer Science and Engineering, GPA 3.37/4.0 2016 – 2019
Military Institute of Science and Technology, Bangladesh

PUBLICATIONS

TabKD: Tabular Knowledge Distillation through Interaction Diversity of Learned Feature Bins

Shovon Niverd Pereira, Krishna Khadka, Yu Lei | *The 35th International Joint Conference on Artificial Intelligence (IJCAI 2026)*
<https://www.ijcai.org/proceedings/2026/526>

Earlier Publications

Blockchain-based Digital Record-Keeping in Land Administration System

Shovon Niverd Pereira, N. Tasnim, R. S. Rizon, M. N. Islam | *International Joint Conference on Advances in Computational Intelligence (IJCAI 2021), Springer*

Multi-channel Approach Towards Digitizing the Land Management System of Bangladesh

Shovon Niverd Pereira, N. Tasnim, M. S. Rahman, S. N. Tumpa, M. M. Karim, R. S. Rizon, N. S. Khan, R. A. Remon | *IEEE International WIE Conference on Electrical and Computer Engineering, 2018*

RESEARCH EXPERIENCE

Knowledge Distillation for Tabular ML (TabKD) 2022 – Present
UT Arlington, Advised by Dr. Yu Lei

- Developed a data-free knowledge distillation framework for tabular data, introducing interaction diversity (inspired by combinatorial testing) as a principle for synthetic data generation.
- Designed a feature bin learning approach that captures tabular distributions and maximizes inter-feature interactions; achieved the highest student-teacher agreement in 14 of 16 settings across 4 datasets and 4 teacher models, outperforming 5 baselines (IJCAI 2026).
- Released the open-source implementation: github.com/PereiraMavs/int_div
- Extending this work with a follow-up distillation method for tabular models (manuscript in preparation).

PROFESSIONAL EXPERIENCE

Senior Software Engineer Feb 2020 – Jul 2022
Samsung Research and Development Institute, Bangladesh

- Built and maintained the Samsung Account Android app, used globally across all Samsung devices, leading development of Terms & Conditions, Remote Sign-In, and Profile Status modules.
- Led a resource optimization research initiative targeting Samsung Account performance on low-end devices. Technologies: Android, Kotlin, REST APIs

Graduate Teaching Assistant Sep 2022 – Present
UT Arlington, CSE Dept. | Courses: OO Software Eng., Distributed Systems, Machine Learning, Assembly Language, Computer Graphics, Advanced Topics in Software Engineering

TECHNICAL SKILLS

Languages: Python, Java, Kotlin, C++, JavaScript

ML / Data: PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy

Research Areas: Knowledge Distillation, Tabular Machine Learning, Data-Free Learning, Synthetic Data Generation

Dev & Tools: Android, Git, Docker, REST APIs, Jupyter, VS Code, IntelliJ IDEA

AWARDS & LEADERSHIP

STEM Graduate Fellowship (Federal) | Travel Grant, 13th Summer School on Formal Techniques, SRI International | ICPC Asia Dhaka Regional (2018)

General Secretary, Bangladesh Student Organization at UTA (2025–26) | President, MIST Computer Club (2019)