# Shovon Niverd Pereira

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## Professional Summary

I'm a PhD candidate in Computer Science at UT Arlington with over 2 years of industry experience as a Senior Software Engineer at Samsung R&D Institute. My research focuses on explainable AI and surrogate models for machine learning, while I actively contribute to academia as a Graduate Teaching Assistant across multiple courses from Object-Oriented Software Engineering to Machine Learning.

## Education

**Ph.D. in Computer Science and Engineering**

The University of Texas at Arlington | 2022 - Ongoing

• Software Engineering Research Center • GPA: 3.7/4.0

• Courses Completed: Data Structures & Algorithms, Distributed Systems, Data Analysis & Modelling, Machine Learning, Compilers, Advanced Software Engineering, Computational Models & Algorithms

• PhD Progress: Diagnostic Evaluation ✓, Comprehensive Exam ✓, Coursework ✓, Dissertation Proposal (In Progress)

**Bachelor of Science in Computer Science and Engineering**

Military Institute of Science and Technology | 2016 - 2019

• GPA: 3.37/4.0

## Professional Experience

**Sr. Software Engineer**

Samsung Research and Development Institute | Feb 2020 - July 2022

• Developed Samsung Account application as a part of Android Application team

• Led the development of terms & condition, remote sign in, profile status module

• Worked on several other modules such as sign out, API and app architecture

• Worked as part of a research team to minimize resource usage of Samsung Account in low-end devices

• Samsung Account is being used globally as the principal account and eco-system manager for Samsung devices

**• Technologies: Android, Kotlin**

**Graduate Research Assistant**

Dean's Office, The University of Texas at Arlington | Summer 2024

• Conducted research projects under the Dean's office supervision

• Assisted with academic administrative tasks and initiatives

• Collaborated on institutional research and development projects

**• Focus Areas: Research, Academic Administration**

**Graduate Teaching Assistant**

Department of Computer Science and Engineering, The University of Texas at Arlington | September 2022 - Ongoing

• Prepare course material and exams for bachelor and masters level students

• Grade quizzes and final exams

• Deliver lectures on behalf of course instructor when required

• Guide and evaluate students on various projects

**• Courses: Object-oriented Software Engineering, Distributed Systems, Machine Learning, Assembly Language**

## Research Experience

**Constructing Good Surrogate Model for Machine Learning**

UT Arlington | 2022 - Present

Understanding and interpreting the decision-making process of black-box machine learning models is often challenging, making their predictions less transparent. As ML models are increasingly adopted in sensitive domains like healthcare and finance, ensuring trustworthy and accountable decision-making is critical. This project aims to use surrogate models—simpler, interpretable models that approximate the behavior of complex black-box systems—to improve transparency. These models are easy to analyze and can also be valuable tools in studying adversarial attacks. We are exploring innovative techniques to construct effective surrogate models for black-box ML systems.

**• Research Areas: Machine Learning, Explainable AI, Surrogate Models, Adversarial Attacks**

## Publications

**Blockchain-based digital record-keeping in land administration system**

S Niverd Pereira, N Tasnim, R Sunny Rizon, M Nazrul Islam

Proceedings of International Joint Conference on Advances in Computational Intelligence: IJCACI, 2021

Link: https://link.springer.com/chapter/10.1007/978-981-16-0586-4\_35

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

Shovon Niverd Pereira, Noshin Tasnim, M Shahir Rahman, Sanjida Nasreen Tumpa, Md Mahboob Karim, Rabius Sunny Rizon, Nabila Shahnaz Khan, Ruhul Ambia Remon

2018 IEEE International WIE Conference on Electrical and Computer Engineering, 2018

Link: https://ieeexplore.ieee.org/abstract/document/8783017

## Awards & Recognition

• STEM Graduate Fellowship (Federal) - UT Arlington (2022-Ongoing)

• Dean's Graduate Research Assistant - UT Arlington (Summer 2024)

• Travel Grant to 13th Summer School on Formal Techniques - Stanford Research Institute (2024)

• Qualified for 2018 ICPC Asia Dhaka Regional Programming Contest (2018)

• Inter Department Debate Champion - Military Institute of Science and Technology (2019)

## Leadership Experience

• General Secretary - Bangladesh Student Organization at UTA (2025-26)

• Joint Sports Secretary - Bangladesh Student Organization at UTA (2023-24)

• President - MIST Computer Club, Military Institute of Science and Technology (2019)

## Technical Skills

**Programming Languages:** Python, Java, Kotlin, C++, JavaScript, R

**Machine Learning:** TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy

**Development:** Android Development, Git, Docker, REST APIs

**Databases:** MySQL, PostgreSQL, MongoDB

**Tools:** Jupyter, Android Studio, IntelliJ IDEA, VS Code