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Tushin Mallick

Education

Sept 2023 – Present **Ph.D. in Computer Science**, *Northeastern University*, Boston, MA
GPA 4.00/4.00
Advisor: *Dr. Cristina Nita-Rotaru*

Feb 2017 – May 2022 **B.Sc. in Computer Science & Engineering**, *Bangladesh University of Engineering & Technology*, Dhaka, Bangladesh
GPA 3.70/4.00

Research Interests

Network Security, Distributed Systems, Post-Quantum Cryptography

Experience

May 2025 – July 2025 **Research Intern**, *Cisco Systems*, San José, CA
- Researching security challenges related to post-quantum algorithms.

May 2024 – April 2025 **Graduate Research Assistant**, *NDS2 Lab, Northeastern University (Cybersecurity & Privacy Institute)*, Boston, MA
- Investigating *fingerprinting of post-quantum algorithms* across libraries, protocols and SNARKs.

June 2022 – June 2023 **Research Assistant**, *Bangladesh University of Engineering & Technology*, Dhaka, Bangladesh
- **Malware App Identification using System Call Pattern**
  - Detection of malware applications by training deep learning models on sequential system call attributes.
  - Generated a random forest model that successfully classifies malware and benign applications.
- **Cloud-Fog Federation**
  - Researched federation between cloud and fog networks addressing authentication and application handover problems.

Teaching

Sept 2023 – Apr 2024 **Graduate Teaching Assistant**, *Northeastern University*, Boston, MA
- CS 6240 *Large-Scale Parallel Data Processing* (Spring 2024)
- CS 3700 *Networks & Distributed Systems* (Fall 2023)

Publications

2022 A. Ali, **T. Mallick**, S. Sakib — "Provisioning Fog Services to 3GPP Subscribers," *IEEE ICC 2022*.

2022 A. Ali, **T. Mallick**, M. Islam, M. S. Islam, S. Sakib — "3GPP Edge-Fog Federation: Transparent Third-Party Authentication & Application Mobility," *Computer Communication 2022*.

Honours

2021–2022 Dean's List (2 semesters), Bangladesh University of Engineering & Technology

Selected Coursework

Formal Specification & Verification · Seminar in Computer Systems · Machine Learning · Foundations of Distributed Systems · Information Visualization Theory

Skills

Languages	Python, Java, C/C++, PHP, JavaScript, SQL, HTML/CSS
Frameworks	TensorFlow, Pandas, NumPy, Scikit-learn
Formal Methods	NuXmv, TLA$^+$, Isabelle, Spin
Tools	Linux, Git, Bash/Zsh, LaTeX, Microsoft Office