Shihab Ahmed

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Research Interests

System Security, Malware Analysis, Cyber Threat Intelligence, AI in Cybersecurity

Technical Skills

Languages	Python, C++, Java, Latex	**Developer Tools**	GitHub, NetBeans, Visual Studio Code
Framework	Keras, Tensorflow, Django Rest	**Simulation Tools**	OPNET Modeler, Cisco Packet Tracer
DBMS Tools	SQL, PostgreSQL, MySQL	**Front End**	HTML, CSS, Bootstrap

Education

Towson University, Towson, MD, USA   Aug 2024 – Dec 2028 (Expected)
PhD in Information Technology
GPA: 4.00/4.00

Comilla University (CoU), Cumilla, Bangladesh   Nov 2021 – Sep 2022
Master of Science in Information and Communication Technology
GPA: 3.75/4.00

Comilla University (CoU), Cumilla, Bangladesh   Feb 2016 – Mar 2021
Bachelor of Science in Information and Communication Technology
GPA: 3.79/4.00

Work Experience

Graduate Research Assistant, Towson University   Aug 2024 – Present
Supervisor: Dr. Md Sajidul Islam Sajid

– Research Focus: System Security, Malware Analysis, GenAI for Cyber Deception Orchestration
– Utilizing Generative AI models and prompt engineering to automate the creation of cyber deception ploys.

Research Assistant, Advanced Machine Intelligence Research (AMIR) Lab   Aug 2023 – Jul 2024
Supervisor: Dr. Mohammad Firoz Mridha

– Utilized NLP techniques to develop and implement aspect-based sentiment analysis models for the Bengali language.

Software Engineer, GridFlow Pro (Remote)   Jun 2021 – Nov 2021
Backend Developer (Django)

– Designed APIs using the Django REST Framework.
– Worked with cross-functional teams to communicate project requirements and proposals.
– Worked with Git, and Gitlab for version control.
– Deployed web applications on the Ubuntu server.

Publications

SPADE: Enhancing Adaptive Cyber Deception Strategies with Generative AI and Structured Prompt Engineering
Shihab Ahmed, ABM Rahman, Md Morshed Alam, Md Sajidul Islam Sajid
IEEE CCWC, Las Vegas, NV, 2025
https://doi.org/10.48550/arXiv.2501.00940

tRF-BERT: A Transformative Approach to Aspect-Based Sentiment Analysis in the Bengali Language
Shihab Ahmed, Moythry Manir Samia, Maksuda Haider Sayma, Md Mohsin Kabir, and M. F. Mridha
PLOS ONE Journal, 2024
10.1371/journal.pone.0308050

Awards & Achievements

– Towson University Spring 2025 Doctoral Student Scholarship
– Best Presenter Award, IEEE CCWC 2025
– National Science and Technology Fellowship (2022-2023)
– Junior School Certificate (JSC) Scholarship, Dhaka Board, 2010