Sifat Muhammad Abdullah

Ph.D. Student

Virginia Tech Department of Computer Science ⊠ sifat@vt.edu isifatmd.github.io

Education

2021–Present **Ph.D. in Computer Science**, expected 2025

Virginia Polytechnic Institute and State University, Blacksburg, VA, United States.

Research Interests: Security and Machine Learning.

Advisor: Dr. Bimal Viswanath.

2015–2019 B.Sc. in Computer Science

Bangladesh University of Engineering and Technology, Dhaka, Bangladesh.

Work Experiences

2022-present Graduate Research Assistant

Department of Computer Science, Virginia Tech, Blacksburg, VA, United States.

Research Topic: Evaluating Robustness and Reliability of Defense strategies in Generative

2021 Graduate Teaching Assistant

Department of Computer Science, Virginia Tech, Blacksburg, VA, United States.

2020 Graduate Research Assistant

Bangladesh University of Engineering and Technology, Dhaka, Bangladesh.

Research topic: Road Network Detection with Graph Convolution and Differentiable Pooling.

2019 Junior Software Engineer

REVE Systems, Dhaka, Bangladesh.

Honors & Awards

2017, 2018

2015, 2016, Dean's List Award from Bangladesh University of Engineering and Technology (BUET).

Publications

IEEE S&P'24 An Analysis of Recent Advances in Deepfake Image Detection in an Evolving Threat Landscape

Sifat Muhammad Abdullah, Aravind Cheruvu, Shravya Kanchi, Taejoong Chung, Peng Gao, Murtuza Jadliwala, Bimal Viswanath.

IEEE S&P, San Francisco, California, May 2024.

ACSAC'23 A First Look at Toxicity Injection Attacks on Open-domain Chatbots

Aravind Cheruvu, Connor Weeks, Sifat Muhammad Abdullah, Shravya Kanchi, Danfeng (Daphne) Yao, Bimal Viswanath.

ACSAC, Austin, TX, Dec 2023.

IEEE S&P'23 Deepfake Text Detection: Limitations and Opportunities

Jiameng Pu, Zain Sarwar, <u>Sifat Muhammad Abdullah</u>, Abdullah Rehman, Yoonjin Kim, Parantapa Bhattacharya, Mobin Javed, Bimal Viswanath.

IEEE S&P, San Francisco, California, May 2023.

PLOS ONE'22 **CHAPAO:** Likelihood and hierarchical reference-based representation of biomolecular sequences and applications to compressing multiple sequence alignments.

Md Ashiqur Rahman, Abdullah Aman Tutul, <u>Sifat Muhammad Abdullah</u>, Md Shamsuzzoha Bayzid.

PLOS ONE Journal, 2022.

SIGSPATIAL'20 A Web-Based System for Efficient Contact Tracing Query in a Large Spatio-Temporal Database.

Shadman Saqib Eusuf, Kazi Ashik Islam, Mohammed Eunus Ali, <u>Sifat Muhammad Abdullah</u>, Abdus Salam Azad.

SIGSPATIAL, Seattle, WA, USA, November, 2020.

Conference Experiences

IEEE S&P'24 Attended IEEE S&P in May, 2024.

ACSAC'23 Attended ACSAC Conference in Dec, 2023.

USENIX Attended USENIX Security Symposium (virtual conference) in August, 2021.

Security'21

NDSS'21 Attended Network and Distributed System Security Symposium (virtual conference) in February, 2021.

Service and Extracurricular Involvement.

VT@CS Graduate student volunteer at annual graduate recruiting events.

BUET@CS Ambassador of BUET Career Club.

Skills

Languages Python, Java, Javascript, C++, C, MySQL, Firebase, Bash.

Frameworks Tensorflow, PyTorch, Keras, Hugging Face, DL models (Transformers, CNNs, LSTMs, RNNs, etc.).

Tools Git, LaTeX, Unix systems.