Mohammad Ishtiaq Ashiq Khan

CS PhD Student at Virginia Tech

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HIGHLIGHTS

- Have advanced knowledge of OOP, algorithms, data structures, computer networks, network security, and relational DBMS.
- Demonstrated strong teamwork skills in collaborative research and multiple team projects.
- Developed effective communication skills by interacting with students at different levels of expertise while being employed as a university lecturer.
- Contributed to two open source projects in TextAttack and Mail-in-a-Box.

Work Experience

Graduate Research Assistant, Virginia Tech

Supervisor: Dr. Taejoong Chung

- Currently focusing on how a data-driven approach can improve mismanagement and security of public key infrastructure (PKI).

Lecturer at United International University, Dhaka, Bangladesh

Department of CSE

Jul '19 - Jan '21

- Taught Network Security, Artificial Intelligence Laboratory, Object Oriented Programming, etc.
- Supervised student projects

Full Stack Software Engineer at InfoSapex Limited, Dhaka, Bangladesh

Department of Design and Development

Nov '18 - Jul '19

- Developed a Procurement Management System for both server-side and client-side
- Designed a large, normalized database connecting multiple modules
- Added an efficient real-time report generation system
- Managed the server-side configuration and deployment of the system
- Stack: Django Rest, JS, jQuery, HTML, CSS, Bootstrap, PostgreSQL, Celery

EDUCATIONAL QUALIFICATION

Virginia Tech, Blacksburg, Virginia, USA

Ph.D., Computer Science and Applications CGPA: 4.00/4.00 (Ongoing)

Jan '21 - Dec '25 (Expected)

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh Bachelor of Science, Computer Science and Engineering

Jul '14 - Oct '18

CGPA: 3.83/4.00

RESEARCH Interests Network Security and Measurement, Data Analysis, Machine Learning

PUBLICATIONS

Measurement and Analysis of Automated Certificate Reissuance

Supervisor: Dr. Taejoong Chung

May '20 - Nov '20

Authors:Olamide Omolola, Richard Roberts, M
d. Ishtiaq Ashiq, Taejoong Chung, Dave Levin, and Alan Mislove

- In Proceedings of the Passive and Active Measurement Conference (PAM), Virtual, Mar 2021

Domain Flux based DGA Botnet Detection Using Feedforward Neural Network

Supervisor: Dr. Md. Shohrab Hossain

Jan '18 - Jul '19

Authors: Md. Ishtiaq Ashiq, Protick Bhowmick, Md. Shohrab Hossain, and Husnu S. Narman

- In IEEE Military Communications Conference (MILCOM), Norfolk, VA, USA, Nov 12-14, 2019

PROJECTS

Automating DANE management

Supervisor: Dr. Taejoong Chung

Oct '20 - Present

- Contributed to an open source project to automate DANE configuration updates after key rollover [Link]
- Submitted in USENIX Security 2022

A Study on Adversarial Training: Is adversarial training transferable in the text domain?

Supervisor: Dr. Bimal Viswanath

Mar '21 - Apr '21

- Conducted an experiment to check AT transferability across adversarial frameworks GitHub Link, Framework: PyTorch
- Fixed a bug on the reference open-source framework [Link]

Experimenting with Web Honeypots: How robust is SNARE-TANNER?

Supervisor: Dr. Angelos Stavrou

Mar '21 - Apr '21

- Devised and demonstrated vulnerabilities for attackers to bypass detection in SNARE-TANNER framework, details here.

SKILLS

Languages: Python, Java, C++, C, LATEX, JavaScript, Assembly (x86)

Framework: Django Rest, Tensorflow, PySpark, PyTorch Database Management System: SQL, PostgreSQL

Other: HTML, CSS, Bootstrap, jQuery, familiar with Android, Redis, NodeJS, Apache

AWARDS & ACHIEVEMENTS

Awarded University Merit List Scholarship for academic performance at BUET

Awarded Dean's List Scholarship for academic performance at BUET

Awarded Dhaka Board SSC & HSC Scholarship in 2011 & 2013 respectively