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 involved in research related to DNS security

Lecturer at United International University, Dhaka, Bangladesh
Department of CSE
Jul '19 - Jan '21
   - Taught Network Security, Artificial Intelligence Laboratory, Object Oriented Programming, etc.

Software Engineer at InfoSapex Limited, Dhaka, Bangladesh
Department of Design and Development
Nov '18 - Jul '19
   - Developed and deployed a Procurement Management System (available here: proinfo.lged.gov.bd)

EDUCATIONAL QUALIFICATION

Virginia Tech, Blacksburg, Virginia, USA
Ph.D., Computer Science and Applications   *Jan' 21 - Present*
CGPA: 4.00/4.00 (Ongoing)

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

GRE *Verbal: 160 (86th Percentile), Quant: 169 (95th Percentile), AWA: 4.0 (57th Percentile)*
TOEFL (108) *Reading: 28, Listening: 30, Speaking: 24, Writing: 26*

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, **Md. Ishtiaq Ashiq**, Taejoong Chung, Dave Levin, and Alan Mislove
   - In Proceedings of the Passive and Active Measurement Conference (PAM21), 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

ACADEMIC
PROJECTS

A Study on Adversarial Training: Is adversarial training transferable in the text domain?
Supervisor : Dr. Bimal Viswanath   *Mar '21 - Apr '21*

- [GitHub Link](#)
- Framework: PyTorch

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.

Improving DANE management
Supervisor: Dr. Taejoong Chung   *Oct '20 - Present*

- Contributed to an open source project to automate DANE configuration updates after key rollover [Link]

Road Genie (2017)
- An android application to assist users get an optimal route considering 3 metrics: distance, time, and comfort

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COURSE
PROJECTS

- Implemented multi-programming, demand paging, and priority scheduling to emulate a multi-threading CPU in Operating Systems course.
- Implemented 5 stages of compiler design to build a basic compiler for the C language in Compiler course.
- Implemented several learning algorithms such as AdaBoost, EM clustering, ALS based recommendation, template matching in images, etc. as part of Machine Learning and Pattern Recognition course.

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, Android (basic), Redis (basic), NodeJS (basic), Apache (basic)

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