Mir Mehedi Ahsan Pritom

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EDUCATION

2019 - 2022	**Doctor of Philosophy** (CGPA: 4.00) Computer Science University of Texas at San Antonio Advisor: Dr. Ravi Sandhu and Dr. Shouhuai Xu
2015 - 2018	**Masters of Science (IT)** (CGPA: 3.70) Software and Information Systems University of North Carolina at Charlotte Advisor: Dr. Thomas Moyer
2010 - 2014	**Bachelor of Science** (CGPA: 3.64) Computer Science and Engineering University of Dhaka, Bangladesh Thesis Advisor: Dr. Abdur Razzaque

RESEARCH INTEREST

I am primarily interested in data-driven cybersecurity, automation, and human factors in security. My current research focuses on designing proactive defenses against malicious and compromised websites by analyzing URL threat intelligence and other complementary data. I am also interested in studying the users' perceptions (human factors) of malicious versus compromised website visits.

RESEARCH PROJECT HIGHLIGHTS

● **B2CSM: Blockchain-based Automated Cyber Security Management**: This project proposes an automated and tamper resistant CSM in enterprise environment leveraging blockchain technology. We design working prototype to run demo experiments with CSM various queries and show the feasibility of such system. *(manuscript accepted in ACM CODASPY 2021)*

● **Trustworthy Quantification of Website Compromise**: Proposing a novel framework for quantifying probability of website compromise based on feature learning from malicious, compromised, and top websites in the Internet. We define new trust metrics to measure the trustworthiness of such quantification.*(Ongoing)*

WORK EXPERIENCE

Laboratory of Cybersecurity Dynamics, UTSA
Research Assistant (May 2019 - Present)

My research focuses on data-driven security, specifically I extract features for malicious and compromised websites, use ML and DL classifiers to detect and quantify the likelihood website maliciousness.

Department of Computer Science, UTSA
Teaching Assistant (Jan 2019 - May 2019)

My responsibilities include grading assignments, exams, term projects, mentoring students, and holding office hours.
- ▶ Cyber Operations (CS 4723)
- ▶ Secure Software Development and Analysis (CS 4683)

Center for Cybersecurity Analytics and Automation
Research Assistant (May 2016 - Jul 2017)

I was actively involved in research projects related to data-driven security, threat intelligence analysis, and extraction of TTPs from threat reports.

Department of Software & Information Systems, UNC Charlotte
Teaching Assistant (Aug 2015 - Dec 2018)

My responsibilities include grading assignments, exams, projects, mentoring students, and providing tutorials.
- ▶ Advanced Network Security (ITIS 6167/8167)
- ▶ Intro to Info Security and Privacy (ITIS 3200)
- ▶ Network Based Application Development (ITIS 4166)
- ▶ IT Infrastructure II: Design and Practise (ITIS 3110)

Samsung R&D Institute, Bangladesh
Software Engineer (Sep 2014 - Jul 2015)

In this position, I have developed efficient and robust web-based mobile applications for Tizen platform using JavaScript, JQuery, HTML, and CSS. I practiced SCRUM during SDLC.

TECHNICAL SKILLS

LANGUAGE	Python, Java, R, C/C++, Javascript, PHP
DATABASES	MySQL, Apache Spark, MapReduce
WEB & CLOUD	Tomcat, HTML, CSS, JQuery, JSP servlet, AWS, Google Cloud Platform
TOOLS & PLATFORM	Fortify SCA, IBM SPSS, Palo Alto Firewall, Burpsuite, VMWare Workstation, WireShark, Protege, ELK stack, Git, Weka, Tensorflow, Keras, MS Project, Trello
ANALYTICS	Classification (Naive Bayes, Random Forest, SVM, kNN, Regression), Clustering (K-means, DBSCAN), Deep Neural Nets (CNN, RNN, LSTM)

AWARDS AND HONORS

AUG 2019 - DEC 2020	**UTSA Graduate Fellowship** *University of Texas at San Antonio*
SEP 2020	**1st Place, COVID-19 Transdisciplinary Team Grand Challenge (Proposal Writing)** *UTSA Graduate School*
MAR 2017	**2nd Place, Engineering and CS Poster, 17th Graduate Research Symposium** *University of North Carolina at Charlotte*

PUBLICATION HIGHLIGHTS

2020	**doi:10.1109/ISI49825.2020.9280522**
2020	**doi:10.1109/ISI49825.2020.9280539**
2017	doi:10.1145/3140368.3140369
2017	**doi:10.1109/ICCCN.2017.8038522**
2017	doi:10.1109/ICCCN.2017.8038527
	First author publications in **bold**