Mir Mehedi Ahsan Pritom

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OBJECTIVE

I want to hone my AI skills further by solving real-world technical challenges in a problem-driven environment.

EDUCATION

2019 - 2022	**Doctor of Philosophy** (CGPA: 4.00)	
	Computer Science	
	University of Texas at San Antonio	
2015 - 2018	**Masters of Science** (CGPA: 3.70)	
	IT (Security and Privacy concentration)	
	University of North Carolina at Charlotte	
2010 - 2014	**Bachelor of Science** (CGPA: 3.64)	
	Computer Science and Engineering	
	University of Dhaka, Bangladesh	

WORK EXPERIENCES

Laboratory of Cybersecurity Dynamics, UTSA
Research Assistant (May 2019 - Dec 2020)

My research focuses on data-driven security, with quantifying uncertainty and explainablity for identifying malicious & abused websites.

Department of Computer Science, UTSA
Teaching Assistant (Jan 2019 - May 2019, Jan 2021 - Now)

Responsibilities include grading, instructing with labs, and projects.
- ▶ Cyber Operations (CS 4723) [Spring 2019]
- ▶ Secure Software Development and Analysis (CS 4683) [Spring 2019]
- ▶ Data Structure (CS 2124) [Spring 2021]
- ▶ Advanced Software Engineering (CS 4783) [Spring 2021]

Center for Cyber Analytics and Automation, UNCC
Research Assistant (May 2016 - Jul 2017)

Actively involved in projects related to data-driven security, threat intel analysis, threat hunting, and extraction of TTPs from threat reports.

Dept. of Software & Information Systems, UNCC
Teaching Assistant (Aug 2015 - Dec 2018)

Responsibilities include grading, proctoring, and mentoring students.
- ▶ Advanced Network Security (ITIS 6167/8167)
- ▶ Intro to Info Security and Privacy (ITIS 3200)
- ▶ Network-based App Development (ITIS 4166)
- ▶ IT Infrastructure II: Design and Practise (ITIS 3110)

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

I developed robust web-based mobile apps for Tizen platform using JavaScript, JQuery, HTML, and CSS while using SCRUM framework.

RESEARCH PROJECT HIGHLIGHTS

● **Enabling Law Enforcement Based on Website Blacklist**: Propose framework, mechanisms, and case study for quantifying likelihood of benign, compromise, and malicious domains in existing blacklists. We also propose confidence and explainability metrics for each domain's quantification to increase the trustworthiness. *(Ongoing)*

● **Blockchain-based Automated Cyber Security Management**: Proposes an automated and tamper resistant CSM in enterprise environment leveraging blockchain technology and designed working prototype to run demo experiments with CSM queries. *(US Patent application filed)*

● **Tackling COVID-19 Themed Cyberattacks**: Systematically understand threat landscapes of COVID-19 themed cyberattacks. We propose defense spaces for these threats and propose proactive detection methodologies for themed malicious websites, and misinformation in social media.

TECHNICAL SKILLS

LANGUAGE	Python, Java, R, C/C++, Javascript
DATABASES	MySQL, Apache Spark, MapReduce
WEB & CLOUD	Tomcat, HTML, CSS, JQuery, Web scrapping, AWS, Google Cloud Platform
TOOLS, PLATFORMS, & LIBRARIES	Fortify SCA, Xampp, Burpsuite, VMWare, WireShark, ELK stack, IBM SPSS, Keras, Tensorflow, NLTK, scikit-learn, Protege, Git, MS Project, Trello, Regex
ANALYTICS	Classification (Naive Bayes, Random Forest, SVM, kNN, Regression), Clustering (K-means, DBSCAN), Deep Neural Nets (CNN, RNN, LSTM) NLP/Text mining(n-gram, TF-IDF, word embedding, bag-of-words, topic modeling)

LEADERSHIP EXPERIENCES

JAN 2020 - NOW	**Executive Member**	
	Bangladesh Student Association, UTSA	
MAR 2018 - DEC 2018	**Founding President**	
	Bangladesh Student Organization, UNCC	
OCT 2017 - OCT 2018	**General Secretary**	
	CCI Grads, UNCC	

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)**	
	University of Texas at San Antonio	
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**