

Mazharul Islam

CONTACT INFORMATION

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🌐 <http://islamazhar.github.io>
🔍 Google Scholar
📄 GitHub

RESEARCH INTERESTS

Security, Privacy, Applied Cryptography, Program Analysis, Internet Measurement

EDUCATION

University of Wisconsin-Madison, Madison, WI

Graduate (Masters/PhD). student, Computer Science [2020-present]

Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

BSc. in Computer Science and Engineering. [2012-2017]

- Advisor: Dr. A. B. M. Alim Al Islam
- Thesis: Attacking Live Websites with exploits.

RESEARCH EXPERIENCE

Summer Research Intern, Virginia Tech [May 2020 -Aug 2020]
– Project Name: Sonar Computation.

I built a realistic 3D simulation environment to visualize bat-inspired bio-sonar's flying path trajectory in dense vegetation.

Research Assistant, Virginia Tech [Jan 2020- May 2020]
–Project Name: Securing Crypto Implementations.

I Identified 6 types of security anti-patterns and 4 insecure vulnerable defaults by conducting a measurement-based approach on 28 Spring applications.

TEACHING EXPERIENCE

Graduate Teaching Assistant, CS 642-Introduction to Information Security [Fall 2020]
University of Wisconsin-Madison, Department of Computer Science

Lecturer, – Instructor for undergraduate level theory courses. [July 2017 – Aug 2019]
United International University, Department of Computer Science

I have designed and instructed the following undergraduate level courses:

- ❑ CSE-477: Network Security (Summer-17, Spring-18, Summer-18, Fall-18)
- ❑ CSE-315: Data communications (Spring-18, Summer-18)

INDUSTRY EXPERIENCE

Software Engineer, iPay Systems Limited [May 2017 – Jun 2017]

I worked as a front-end developer and part of security testing team.

- Designed contact search, profile settings, and money transaction pages into the existing code base using Angular JS - 1.2.
- Built a firewall manager on top of `iptables` to help the network administrator add new rules, delete old rules, and modify existing rules.

PUBLICATIONS

[1] **M. Islam**, S. Rahaman, N. Meng, B. Hassanshahi, P. Krishnan, D. Yao, “*Coding Practices and Recommendations with Spring Security for Enterprise Applications*”, 2020 *IEEE Secure Development Conference, Atlanta, GA (Sec-Dev '20)*, [Acceptance Rate: 17/43 = 39%]

[2] **M. Islam**, K. Sarker, T. Das, R. Reaz, Md S. Bayzid “*STELAR: A statistically consistent coalescent-based species tree estimation method by maximizing triplet consistency*”, BMC Genomics 21, 136 (2020). [**impact factor: 3.7**]


[3] **M. Islam** , N. Naurin, M. Kaykobad, S. Chellappan, and A. B. M. A. A. Islam, “*HEliOS: Huffman Coding Based Lightweight Encryption Scheme for Data Transmission*” 16th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (ACM, Houston, TX, USA) **MobiQuitous '19**, [**h index: 37, Acceptance Rate: 26/87 = 30%**].

[4] **M. Islam**, Md. N. Ansary, N. Nurain, S. P. Shams and A. B. M. A. A. Islam, “*A Sweet Recipe for Consolidated Vulnerabilities : Attacking a Live Website by Harnessing a Killer Combination of Vulnerabilities for Greater Harm*”, 5th International Conference on Networking, Systems and Security 2018 , Dhaka, Bangladesh **NSysS '18** [**Acceptance Rate: 15/52 = 29%**]

CONFERENCE
TALKS

Huffman coding based encryption scheme, MobiQuitous 2019, Houston, Texas.

HONORS AND
AWARDS

2017  Champion Student Poster Award (1/42), NSysS '17.
2015, 2016 Dean List Awards for outstanding academic performance
Department of computer science, BUET.
University Merit List Scholarship for Academic Result, BUET.

SELECTED
PROFESSIONAL
SERVICES

Sub Reviewer IEEE-S&P 20, Journal of Transactions on Dependable and Secure Computing (TDSC)
Coach ACM-ICPC Asia Dhaka Regional Programming Contest 2017, Placed 8/72.
Problem Setter BUET-INTRA Programming contest CSE DAY-2016.

GRADUATE
COURSEWORK

CS 763: Security and Privacy in Data Science.
 CS 703: Program Verification and Synthesis.

OTHER NOTEABLE
ACTIVITY

Champion, Inter hall chess championship- BUET 2016

I have participated in numerous online and onsite programming contests to enhance my skills in solving data structure and algorithm related problems. A few of them follows

- ACM-ICPC Asia Dhaka Regional Programming Contest - 2014, Placed 17/122.
- Quazi Azhar Ali Programming Contest - 2015, Placed 11.

REFERENCES

- Dr. Rahul Chatterjee, Assistant Professor, Department of Computer Science, University of Wisconsin-Madison.
- Dr. Sazzadur Rahaman, Assistant Professor, Department of Computer Science, University of Arizona.
- Dr. Danfeng (Daphne) Yao, Professor, Department of Computer Science, Virginia Tech.
- Dr. Hongxiao Zhu, Associate Professor, Department of Statistics, Virginia Tech.