

Muhammad Muzammil

Stony Brook, NY, 11790

[LinkedIn](#) | [GitHub](#) | Email: mmuzammil@cs.stonybrook.edu | Mobile: (+1) 631-361-0730

EDUCATION

Stony Brook University

Ph.D. in Computer Science (focus in cybersecurity), CGPA: 3.9/4.0

Aug 2022—Present

Expected Graduation: 2027

Lahore University of Management Sciences

Bsc. in Computer Science (focus in computer networking & cybersecurity)

Aug 2018—May 2022

WORK EXPERIENCE

Stony Brook University [\[PragSec Lab\]](#)

Research Assistant & Teaching Assistant

Aug 2022—Present

Stony Brook, NY

- **Automatic Longitudinal Scam Detection:** Designed and implemented a distributed web crawler using Certificate Transparency logs, integrating a RabbitMQ-based queueing system across multiple machines to analyze 1 million certificates hourly, successfully identifying 500-1,000 cryptocurrency scams everyday. The results will be validated by the better performing between OpenAI's GPT4-Vision model, or a Convolutional neural network (CNN). (Ongoing)
- **Web3 Domain-Dropcatching:** Conducted a comprehensive study revealing over 200,000 ENS domains were re-registered, potentially capturing unintended transactions due to residual trust from their previous owners. Identified around 1,000 cryptocurrency wallets that were victims to this attack. Trained a random forest classifier (with 75% accuracy/0.75 F1 score) to detect if a domain will be re-registered. (**IMC 2024**)
- **Typosquatting on Web3 Domains:** Developed a sophisticated crawler to collect and analyze extensive datasets of Web3 domain names (including ENS, Unstoppable Domains, and ADA Handles) and blockchain transactions, uncovering that 37% of popular domains are targeted by typo-squatting. These attacks have successfully diverted an average of \$1,700 per targeted domain. (**eCrime 2024**)
- **Teaching Assistant:** Software Security & System Fundamentals II

Infoblox

Web Security Intern

June 2024—August 2024

Tacoma, WA

- **Longitudinal Dropcatch Domain Detector:** Designed and implemented a system to detect dropatched domains that were queried by Infoblox customers.

Lahore University of Management Sciences

Research Assistant & Teaching Assistant

Aug 2020—May 2022

Lahore, Pakistan

- **Software Debloating Benchmark:** Designed and implemented an extensible benchmarking infrastructure for software debloating tools, and used it to conduct performance analysis of various existing software debloaters (**ESORICS 2023**)
- **Teaching Assistant:** Computational Problem Solving, Object Oriented Programming in C++ (Head Teaching Assistant for 2 semesters) & Introduction to Artificial Intelligence

PUBLICATIONS

- **SoK: A Tale of Reduction, Security, and Correctness-Evaluating Program Debloating Paradigms and Their Compositions.** 29th European Symposium on Research in Computer Security (ESORICS 2023). [\[PDF\]](#)
- **Typosquatting 3.0: Characterizing Typosquatting in Blockchain Naming Systems.** 2024 Symposium on Electronic Crime Research (eCrime 2024).
- **Panning for gold.eth: Understanding and Analyzing ENS Domain Dropcatching.** ACM Internet Measurement Conference 2024 (IMC 2024).

ACADEMIC SERVICE

- **Artifact Evaluator:** ACM Conference on Computer and Communications Security (ACM CCS) 2023.

AWARDS AND HONORS

Conference Travel Grant

ACM Internet Measurement Conference (IMC). Montreal, Canada.

2023

Fund for conference attendance

Chairman Fellowship Award

Stony Brook University

2022 & 2023

Awarded to the top PhD applicants

Dean's Honor List

Lahore University of Management Sciences

2020

Awarded for academic excellence

SKILLS & RELEVANT COURSES

- **Programming Languages & Tools:** Python (Expert), C/C++, MySQL, RabbitMQ, Docker, LaTeX, Javascript, BERT, HTML, CSS, Git/Github
- **Relevant Courses:** Data Science, Advanced Programing, Computer Networks, Research in Computer Networks, Network Security, System Security, Operating Systems, Algorithms & Data Structures, Databases