

EDUCATION

Stony Brook University <i>Ph.D. in Computer Science (focus in cybersecurity), CGPA: 3.9/4.0</i>	Aug 2022—Present <i>Expected Graduation: 2027</i>
Lahore University of Management Sciences <i>Bsc. in Computer Science (focus in computer networking & cybersecurity)</i>	Aug 2018—May 2022

WORK EXPERIENCE

Stony Brook Univesity [PragSec Lab] <i>Research Assistant & Teaching Assistant</i>	Aug 2022—Present <i>Stony Brook, NY</i>
<ul style="list-style-type: none">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 <i>Web Security Intern</i>	June 2024—August 2024 <i>Tacoma, WA</i>
<ul style="list-style-type: none">Longitudinal Dropcatch Domain Detector: Designed and implemented a system to detect dropcached domains that were queried by Infoblox customers.	
Lahore University of Management Sciences <i>Research Assistant & Teaching Assistant</i>	Aug 2020—May 2022 <i>Lahore, Pakistan</i>
<ul style="list-style-type: none">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

<ul style="list-style-type: none">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

<ul style="list-style-type: none">Artifact Evaluator: ACM Conference on Computer and Communications Security (ACM CCS) 2023.	
---	--

AWARDS AND HONORS

Conference Travel Grant <i>ACM Internet Measurement Conference (IMC). Montreal, Canada.</i>	2023 <i>Fund for conference attendance</i>
Chairman Fellowship Award <i>Stony Brook University</i>	2022 & 2023 <i>Awarded to the top PhD applicants</i>
Dean's Honor List <i>Lahore University of Management Sciences</i>	2020 <i>Awarded for academic excellence</i>

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