ZAINAB AAMIR

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EDUCATION

Stony Brook University, New York   *August 2021 - Present*
PhD in Computer Science
Graduate Courses : Operating Systems, Compiler Design, Data Science, Fundamentals of Computer Networks,
Overall GPA: 3.7

Lahore University of Management Sciences, Pakistan   *August 2017 - May 2021*
BSc (Honours) in Computer Science
Overall GPA: 3.5

EXPERIENCE

Stony Brook University   August 2021 - Present
Research Assistant   *Stony Brook, New York*

· Working under Professor Dongyoon Lee, under the broad area of software and system security and programming languages

Grey Matter Global Consultancy   January 2020 - May 2020
Application Developer   *Pakistan*

· Designing and developing a web application for automated college counselling using React JS

PUBLICATIONS

Hassan, **Aamir**, Lee, Davis, and Servant. *Improving Developers' Understanding of Regex Denial of Service Tools through Anti-Patterns and Fix Strategies.* Proceedings of the 44th IEEE Symposium on Security and Privacy **(IEEE S&P'23)**

PROJECTS

Linux Stackable File System   February 2022 - May 2022

· Modified the linux kernel source code to implement a stackable file system in order to support recycling bin functionalities in Linux
· Multi-threaded operations to allow for concurrent use by multiple users with different permissions

Web Page Rendering Enhancement   August 2021 - December 2021

· Implemented a rendering engine to enhance a webpage for larger screen sizes
· Fed individual extracted DOM attributes of a webpage to Unity in order to scale them up proportionally for viewing on a 3x2 monitor setup (5120 x 1440 - 48")

Encrypted Smartphone Network Traffic Analysis   February 2021 - May 2021

· Implemented various deep learning techniques to analyze side-channel data of smartphone network traffic
· Extracted fingerprints of smartphone applications from the network traffic were fed to the deep learning model to identify the application

AWARDS

ACM CCS Student Conference Grant $1100

TEACHING EXPERIENCE

Teaching Assistant-Fundamentals of Computer Networks (CSE 534) August 2022 - Present
Taught by Professor Aruna Balasubramanian *Stony Brook,New York*

Computer Science and Informatics Summer Research Experience May 2022 - August 2022
Mentor *Stony Brook,New York*

· Mentored two high school students for three months on conducting research on regular expressions extracted from the SNORT database, studying their characteristics and potential ReDOS vulnerabilities

Teaching Assistant - Systems Fundamentals(CSE 220) January 2022 - June 2022
Taught by Professor Joydeep Mitra *Stony Brook,New York*

Teaching Assistant - Databases(CS 340) August 2020 - December 2020
Taught by Professor Naveed Arshad *Lahore, Pakistan*