

Sarah Tanveer

 [sarah-tanveer.github.io](https://github.com/sarah-tanveer) |  Sarah Tanveer |  sarahtanveer99@outlook.com

EDUCATION

PhD Computer Science at **University of Wisconsin-Madison** Starting Fall 2024

BS Computer Science at **Lahore University of Management Sciences** 2019 - 2023

GPA: 3.73/4.0, SCGPA: 3.77/4.0

Relevant Courses: Distributed Systems, Topics in Internet Research, Operating Systems, Network Security, Network-Centric Computing, Human-Computer Interaction, Software Engineering

PUBLICATIONS

A Framework for Improving Web Affordability and Inclusiveness SIGCOMM 2023

Rumaisa Habib*, **Sarah Tanveer***, Aimen Inam, Haseeb Ahmad, Ayesha Ali, Zartash Afzal Uzmi, Zafar Ayyub Qazi, Ihsan Ayyub Qazi [**Joint First Authors*]

RESEARCH PROJECTS

Local Browser Caching January 2024 - June 2024

- Led and managed a team of four students on a project on local web browser caching and how it affects the affordability of the web
- Designed measurement experiments to analyze the impact of local caching on web page sizes
- Analysed factors that impact local caching on low-end devices

Short-Form Video Caching Sept 2023 - Dec 2023

- Analysed potential system designs to serve short-form video content
- Implemented a system to test out various caching schemes for short-form video content

LEO Satellites Sept 2023 - Dec 2023

- Explored network properties of Starlink
- Collected measurements using iPerf to analyze the throughput pattern of Starlink and how it corresponds to the relative position of the satellite

Web Affordability and Inclusion (NSG@LUMS) Jan 2022 - May 2023

- Conducted a large-scale measurement study of 72,000 webpages to analyze the affordability of the Web
- Proposed and implemented a novel framework (transcoding service) to decrease average webpage sizes with minimal impact to quality
- Designed and implemented a novel heuristics-based image reduction algorithm and a brute force algorithm to reduce webpage size with minimal quality degradation
- Systematically analyzed the effectiveness of the framework to improve the affordability of webpages
- First Author Publication in SIGCOMM 2023

WORK EXPERIENCE

LUMS - Research Assistant Jan 2024 - Present

- Working with Prof. Zafar Ayyub Qazi and Prof. Ihsan Ayyub Qazi and Prof. Zartash Afzal Uzmi

UIUC - Research Intern

Sept 2023 - Dec 2023

- Worked under Prof. Deepak Vasisht and Prof. Indranil Gupta

LUMS - Research Assistant

July 2021 - May 2023

- Worked under Dr. Zafar Ayyub Qazi, Dr. Ihsan Ayyub Qazi and Dr. Zartash Afzal Uzmi

LUMS - Teaching Assistant

2022 - 2023

- CS 678: Topics in Internet Research (Spring 2023)
 - Mentored students conducting research for the first time by supervising research projects
- CS 382: Network-Centric Computing (Spring 2022)
 - Guided and managed a class of 150+ students and created testing material

Tajir (YC W20) - Software Engineering Intern

June 2022 - July 2022

- Designed and implemented internal tooling for business analytics
- Conducted market/user research to gather insights to improve customer support system
- Designed new features for customer service UI
- Conducted A/B user testing

Gold Contributor - Educative

Jul 2021 - Jan 2022

- Wrote technical articles on various topics in Computer Science

COURSE PROJECTS

Raft

Sept 2022 - Nov 2022

- Implemented the complete Raft distributed consensus algorithm in Go

BookIt

Jan 2022 - April 2022

- Implemented a platform for exchanging books using FERN stack (Firebase, Express, React, Node.js.)

Polarity - A Mood Tracker for Bipolar Disorder

Sept 2021 - Dec 2021

- Conducted semi-structured interviews for requirements gathering
- Iterated through designs using low-fi and hi-fi prototypes
- Designed and implemented prototype on Figma
- Conducted user testing for prototype

TECHNICAL SKILLS

Programming Languages: Python, C++, Go, JavaScript, Haskell, Solidity

Tools and Technologies: WebPageTest, Figma, Selenium, OpenCV, MySQL, iperf

LEADERSHIP ROLES

General Secretary - LUMS Women in Computing

Sept 2022 - May 2023

- Led and managed Events and Outreach Departments
- Organised events to empower and uplift women in STEM
- Successfully conducted a BootCamp to teach high school girls Python Programming with 50+ participants

AWARDS AND HONORS

Graduated with Distinction	2023
Students as Co-Researchers Grant	2022
Dean's Honor List	2019-2022