

# Sarah Tanveer

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

## EDUCATION

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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

## PUBLICATIONS

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**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

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**Short-Form Video Caching**

Sept 2023 - Dec 2023

- Under the guidance of Prof. Deepak Vasisht and Prof. Indranil Gupt at UIUC
- Studying system design 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

- Under the guidance of Prof. Deepak Vasisht and Prof. Indranil Gupt at UIUC
- Exploring 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 effectiveness of the framework to improve the affordability of webpages
- First Author Publication at SIGCOMM 2023

## WORK EXPERIENCE

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**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

- 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, programming-related articles

## COURSE PROJECTS

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**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

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**Programming Languages:** Python, C++, Go, JavaScript, Haskell, Solidity**Tools and Technologies:** WebPageTest, Figma, Selenium, OpenCV, MySQL, iperf

## LEADERSHIP ROLES

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**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 highschool girls Python Programming with 50+ participants

## AWARDS AND HONORS

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**Graduated with Distinction**

2023

**Students as Co-Researchers Grant**

2022

**Dean's Honor List**

2019-2022