Rayhan Rashed

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RESEARCH INTERESTS

My research interest lies at the intersection of sustainability and design, use, and creation of technologies for communities at the margins. My broader interest encompasses effective civic technology & Internet, ICTD, and social computing.

EDUCATION

Bangladesh University of Engineering and Technology   March 16 - February 21
Bachelors in Computer Science and Engineering
CGPA: **3.94/4**, Department Rank: **2/120**

Notre Dame College, Dhaka   July 13 - December 15
Higher Secondary Certificate
Aggregate: **85%**, College Rank: **1/2500**

APPOINTMENTS

Brac University   March 21 - Present
Lecturer, Department of Computer Science

PUBLICATIONS

[1] S M Taiabul Haque, **Rayhan Rashed**, Mehrab Bin Morshed, Naeemul Hassan, and Syed Ishtiaque Ahmed. "Exploring the Tensions between the Owners and the Driversof Uber Cars in Urban Bangladesh". In: *ACM Conference on Computer-Supported Cooperative Work and Social Computing, **CSCW*** (**2021**).

[2] **Rayhan Rashed**, Aminul Hoque, Sriram Chellappan, and A.B.M. Alim-Al Islam. "Dakter Bari: Introducing Technological Intermediary to Ensure Healthcare Services to Extremely Impoverished People". In: *ACM Conference on Computer-Supported Cooperative Work and Social Computing, **CSCW*** (**2021**).

[3] **Rayhan Rashed**, Mohammad Rashidujjaman Rifat, and Syed Ishtiaque Ahmed. "Pandemic, Repair, and Resilience: Coping with Technology Breakdown during COVID-19 in Bangladesh". In: *ACM Conference on Computing and Sustainable Societies **COMPASS*** (**2021**).

RESEARCH EXPERIENCE

Third Space Group, University of Toronto   January 19 – Present
Research Assistant under Prof. Syed Ishtiaque Ahmed
Ontario, Canada

• Leading a project to understand the infrastructural breakdown of informal repair and recycling practices in Bangladesh due to COVID-19 and understand the communities' resilience to withstand the situation. Recruited participants, conducted semi-structured interviews, and analyzed the data using appropriate qualitative coding methods. Part of this work is accepted at **COMPASS 2021.** [3]

• Contributed to a project examining the local adoption of Sharing Economy ventures (e.g., Uber) in the Global South highlighting the tensions and opportunities shaped by the involvement of a new group of stakeholders–private car owners–who make money from Uber without driving their cars. Responsible for designing the questionnaire, recruiting and interviewing participants, and transcribing the data. The paper is accepted at **CSCW 2021.** [1]

Computing Lab, Bangladesh University of Engineering and Technology   September 18 – Present
Undergraduate Researcher with Prof. A.B.M. Alim Al Islam
Dhaka, Bangladesh

• Led the ideation, design, development, and deployment of a healthcare information system for resource-constrained homeless communities in urban Bangladesh that leverage technology and information intermediaries within society. Conducted semi-structured interviews with 70 homeless people and 71 intermediaries to assess the contextualized needs and inter-community relationships. Performed statistical analysis on system usage data to examine the efficacy of the approach. The initial paper resulting from this project has been accepted at **CSCW 2021.**[2]

• Collaborated with ICT Division, Government of Bangladesh to understand adoption, availability, and predict the future demand of the Internet in large families in rural Bangladesh. Contributed to the survey design and collection of 5000+ responses from field surveys conducted in rural areas allover the country. Leading the quantitative analysis of survey data. Draft in preparation for **CHI Student Research Competition**.

Awards & Achievements

• **Cheman Ara Scholar 2019**: Academic Honor by Computer Science Department, BUET.

• **University Award for Academic Excellence** (**2019, 2018, 2017, 2016**)

• **Champion, National Science Olympiad 2015**: by Bangladesh Academy of Sciences

• **Award of Merit 2015**: Highest Academic Honor by Notre Dame College, Dhaka, Bangladesh

• **Ninth Place 2015**: Among 12,000+ candidates in BUET Entrance Exam [top 0.008%]

• **Earth Champion Fellow 2015**: Awarded by Bangladesh Youth Environmental Initiative

Academic Service

Invited Review
- ACM Conference on Human Factors in Computing Systems (**CHI**) 2021
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW**) 2021

Student Volunteer
- **CSCW** 2020
- **UIST** 2020

Teaching & Leadership Experience

Lead Instructor   Spring 2021
CSE 221: Algorithms (111 Students)
Brac University

Teaching Assistant. Course: Design Thinking in HCI   June 19 - August 19
Instructor: Prof. Syed Ishtiaque Ahmed
Workshop series at BUET, Dhaka, Bangladesh

Member, Knowledge, Policy, and Sustainability Team   January 16 - June 19
Bangladesh Youth Environmental Initiative [BYEI]

Skills

User Research: Semi-structured interviews, Surveys, Field studies, Observation, Contextual inquiry.

Data Analysis: Qualitative data analysis (e.g., coding, thematic analysis, affinity diagraming), Quantitative and Statistical analysis (e.g., R, Python), Prototyping and development (e.g., Angular, D3.js).

Languages: Python, R, Java, C/C++, SQL (Postgres), JavaScript, HTML/CSS

Frameworks & Libraries: BeautifulSoup, Numpy, Scikit-learn, Node.js, JUnit, WordPress, Pandas

Developer Tools: Git, Docker, TravisCI, Google Cloud Platform, VS Code