

Akhter Al Amin

PhD candidate in Computing and Information Sciences Student

I am a second-year Ph.D. student in Computing and Information Sciences at Rochester Institute of Technology. My primary research interests lie at the intersection of human-computer Interaction (HCI), AI, and accessibility. I am part of the Center for Accessibility and Inclusion Research (CAIR) lab, where I work under the advisement of Matt Huenerfauth.

@aa7510@rit.edu

in akhteralamin

Academic CV

Google Scholar

+1 585 504 9905

RESEARCH METHODS

Experimental Studies
ML

User-Centered Design
Prototyping

Interviews
Statistical Analysis

Accessibility-first Design

TECHNICAL SKILL

- **Programming Languages:** C++ (9 years), JavaScript (7 years), Python (4 years), Java (3 years)
- **Statistical/Qualitative Analysis tools:** R (3 years), Scipy (2 years), MATLAB (1 years), STATA (1 year),
- **Front-end development and Prototyping:** CSS/HTML, jsPsych, FFMPEG, Figma, Proto.io, Adobe Suite

EDUCATION

PhD Computing and Information Sciences

Rochester Institute of Technology

2019 – 2024

- Advisor: Matt Huenerfauth
- GPA: 3.94, Expected Graduation: May 2024
- Relevant courses: Research Methods in HCI, Quantitative Methods, Qualitative Research Methods, Natural Language Processing(Ongoing), Statistical Machine Learning

B.Sc. Computer Science and Engineering

Bangladesh University of Engineering and Technology 2010 - 2015

- Research Assistantship: Next-Generation Quantum Computing Lab.
- Relevant courses: Participatory Sensing, Data Structure and Algorithm, Object-Oriented Programming, Software Engineering, Database

RESEARCH EXPERIENCE

Graduate Research Assistant

Center for Accessibility and Inclusion Research at RIT

In Aug 2019 – Present Rochester, NY

1. **Caption Evaluation Metric for Live Television (Dept. of Health and Human Services Project)**
 - Collected and analyzed datasets of Deaf and Hard of Hearing (DHH) users' judgements regarding placement and presentation of caption across different genres of live television. [Dataset](#)
 - Developed a metric for evaluation of live-television captions that is well correlated with DHH users' judgements. [Code](#)
2. **American Sign Language Dictionary Search using Web-cam (NSF Funded Project)**
 - Investigating user behavior in search interfaces that take video-based input by conducting lab-based studies.
 - Identifying and examining the effect of various factors on users' perception of natural-language search systems.

PUBLICATIONS

1. **Akhter Al Amin**, Saad Hassan, and Matt Huenerfauth. 2021. Caption-occlusion severity judgments across live television genres from deaf and hard-of-hearing viewers. In Proceedings of the 18th International Web for All Conference (W4A '21). Association for Computing Machinery, New York, NY, USA, Article 26, 1–12. [Link](#)
2. **Akhter Al Amin**, Saad Hassan, and Matt Huenerfauth. 2021. Effect of Occlusion on Deaf and Hard of Hearing Users' Perception of Captioned Video Quality. In Universal Access in Human-Computer Interaction. Springer International Publishing, Cham, 202–220. [Link](#)
3. **Akhter Al Amin**, Abraham Glasser, Raja Kushalnagar, Christian Vogler and Matt Huenerfauth. 2021. Preferences of Deaf or Hard of Hearing Users for Live-TV Caption Appearance. In Universal Access in Human-Computer Interaction. Springer International Publishing, Cham, 189–201. [Link](#)

PROFESSIONAL EXPERIENCE

Software Engineer (Front-end)

iPay Systems Limited

In Oct 2016 – Jul 2019 Dhaka, Bangladesh

1. Led a team to develop an **Electronic-Know Your Customer (e-KYC)** system for in-house employees to evaluate and project current and future customer interaction with the product. Stack: AngularJS
2. Developed a **Customer Relation Management (CRM)** system for internal customer relation department so that customers data are better communicated to stakeholders. Stack: ReactJS

AWARDS AND HONORS

CAIR Facilities Chair

Selected by director to serve as chair for maintaining lab-wise logistic facilities

PhD Merit Scholarship

Full-tuition and stipend support, Rochester Institute of Technology

Best Poster Nominee

iConference 2021