

Saad Hassan

Research Intern at Google | 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.

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Academic CV

Google Scholar

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RESEARCH METHODS

Experimental Studies

NLP/NLU

User-Centered Design

Prototyping

Interviews

Statistical Analysis

Accessibility-first Design

TECHNICAL SKILLS

- **Programming Languages:** Python (5 years), JavaScript (3 years), C++ (3 years), Java (2 years), GoLang (1 year)
- **Statistical/Qualitative Analysis tools:** R (3 years), MATLAB (4 years), STATA (1 year), NVivo (1 year), Scipy (2 years)
- **Front-end development and Prototyping:** CSS/HTML, Figma, Unity, Photoshop, Balsamiq, Proto.io, Adobe Suite

EDUCATION

PhD Computing and Information Sciences

🏛 Rochester Institute of Technology 📅 2019 – 2024

- Advisor: Matt Huenerfauth
- GPA: 4.0, Expected Graduation: May 2024
- Relevant courses: Research Methods in HCI, Quantitative Methods, Qualitative Research Methods, Statistical Machine Learning, Natural Language Processing, Computational Linguistics, Foundations of Software Engineering

B.S. Computer Science

🏛 Lahore University of Management Sciences 📅 2015 - 2019

- Graduated with high merit
- Teaching Assistantship: Software Engineering
- Relevant courses: Topics in Interactive Computing, HCI, Statistics, Data Science, Advanced Programming, Artificial Intelligence, Human Behavior, Social Psychology

RESEARCH EXPERIENCE

Research Intern

🏢 Google LLC 📅 May 2021 – Present 📍 Mountain View, CA (Remote)

1. Part of the perception team conducting research in sign-language recognition and interfaces

Graduate Research Assistant

🏢 Center for Accessibility and Inclusion Research at RIT 📅 Aug 2019 – Present 📍 Rochester, NY

1. **American Sign Language Dictionary Search using Web-cam (NSF Funded Project) Publication**
 - 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
 - Collaborating with machine-learning scientists and ASL linguists to provide data-driven design recommendations
2. **Kinect Based American Sign Language Education Tool (NSF Funded Project) Publication**
 - Designed and experimentally evaluated technology that can automatically recognize aspects of American Sign Language signing and provide instant feedback to ASL students
3. **Caption Evaluation Metric for Live Television (Dept. of Health and Human Services Project) Publication**
 - 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
 - Developed a metric for evaluation of live-television captions that is well correlated with DHH users' judgements

Undergraduate Researcher

🏢 Computer Human Interaction and Social Experience Lab 📅 May 2018 – Jun 2019 📍 Lahore, Pakistan

1. **Assisting Diagnosis and Rehabilitation of Adolescents with Major Depressive Disorder**
 - Co-designed a tool with psychiatrists using semi-structured interviews and a diary study that allowed better verbalization of symptoms of major depressive disorder (MDD) in adolescents by the use of a game-based solution
2. **Designing Game-Based Learning Solutions for Urdu as a Second Language Publication**
 - Empirically investigated the suitability of the use of a designed gamification framework to assist second-language learning within the context of interactive storytelling in an experimental study

AWARDS AND HONORS

CAIR Communication Chair

Selected by director to serve as chair for lab-wide communications

PhD Merit Scholarship

Full-tuition and stipend support, Rochester Institute of Technology

Student Excellence Award

Language Science and Computational Linguistics, 2021