

SABIHA SALMA

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INTERESTS

UX/UI Research, Software Engineering, HCI, ML/AI for Software Engineering

EDUCATION

Ph.D in Computer Science, George Mason University 2018 - Present

Master of Computer Science, George Mason University 2018 - Present

Relevant Coursework: Artificial Intelligence, User Interface Design/Development, Deep Learning, Intersections of Deep Learning & Software Engineering

Bachelor of Computer Science, University of Dhaka, Bangladesh 2010 - 2014

EXPERIENCE

Project Lead, Graduate Research Assistant, Graduate Teaching Assistant May 2021 - Present
Sage Lab, George Mason University *Fairfax, VA*

- Designed and developed an automated tool using advanced Computer Vision techniques to assist developers during the evolution of Android apps by addressing the challenge of automatic GUI change identification and updated GUI metadata generation in successive releases of Android apps. Achieved over 85% accuracy.

Achievement: Paper under review (Project lead)

- Planned and organized a user study for understanding debugging strategies and challenges for Android mobile apps to offer valuable insights into the needs of software developers that can guide the development of improved debugging tools in the future.

Achievement: NSF-funded ongoing study (Project lead)

- Contributed in developing *ContextDP* dataset with instances of deceptive patterns localized to UI screenshots.

Achievement: Publication in ICSE'2023 (Co-contributor)

- Contributed in designing a behavioral oracle taxonomy for Android apps to identify and categorize common GUI element behaviors.

Achievement: Paper under review (Co-contributor)

- Demonstrated commitment to timely & constructive reviews, and active engagement in the academic community as external reviewer for ICSE23, SANER23, ASE22, SANER22, ICPC21, & MSR21 and co-reviewer for MSR22.

Achievement: Served as a junior PC for MSR'24 and provided thorough feedback for 4 papers.

Graduate Teaching Assistant Aug 2028 - May 2021
Department of Computer Science, George Mason University *Fairfax, VA*

- Led a team of five graduate teaching assistants. Developed scripts & jUnit tests for grading student projects

Achievement: Awarded as Distinguished (2020) and Outstanding (2021) GTA

Project Lead 2015-2016
University of Dhaka *Bangladesh*

- Showcased my innovation in a nation-wide student competition for idea generation organized by the Government of Bangladesh. Designed a student engagement monitoring system through a video-based learning platform.

Outcome: Awarded with ICT Fellowship equivalent of NSF Graduate Research Fellowship

SKILLS

Languages Python, Java

Tools & Frameworks OpenCV, TensorFlow, Scikit-learn, Pandas, Numpy, Android Studio, SQL, MySQL

Soft Skills Collaboration, team work, time management, leadership, remote communication