Sabiha Salma

⌂ Personal Website ✉ sabiha.salma.14@gmail.com in sabiha-salma ⦿ sabiha-salma ⦿ Virginia, USA

RESEARCH INTEREST

Software Engineering, Mobile Software Development, Artificial Intelligence for Software Engineering, Machine Learning for Software Engineering, Human Computer Interaction, Natural Language Processing

EDUCATION

George Mason University   Fall 2018 – Present
Ph.D. Student, Computer Science (*Expected Graduation December 2025*)
Advisor: Dr. Kevin Moran

University of Dhaka   2010-2014
B.S., Computer Science
Advisor: Dr. Shaily Kabir

RESEARCH EXPERIENCE

Graduate Research Assistant, *Sage Lab*   Summer 2021 – Present
Projects: Software Evolution, Principles of Ethical Software Design, Exploration of Software Debugging
Advisor: Dr. Kevin Moran

Independent Research Study, *George Mason University*   Spring 2021
Title: Human-Computer Interaction for Building User Interfaces
Advisor: Dr. Kevin Moran

Summer Research, *George Mason University*   Summer 2020
Title: Generating Libraries of Novel Fragment Configurations to Aid De-Novo Protein Structure Prediction
Advisor: Dr. Amarda Shehu

Ph.D. Introductory Research, *George Mason University*   Spring 2019
Title: How Programming Tools Support Developers
Advisor: Dr. Thomas LaToza

Data Science Research, *University of Dhaka*   Fall 2015 – Summer 2016
Title: Monitoring Student Engagement through a Video based Learning Platform
Advisor: Dr. Amin Ahsan Ali

PUBLICATIONS

1. S M Hasan Mansur, **Sabiha Salma**, Damilola Awofisayo, Kevin Moran (2022). AidUI: Toward Automated Recognition of Dark Patterns in User Interfaces. In The 45th IEEE/ACM International Conference on Software Engineering (ICSE 2023), Melbourne, Australia, May 14th-20th, 2023.

2. Shahnila Zaman, **Sabiha Salma**, Shaily Kabir. Ecient Grouping of Tourism Webpages Considering Ratings and Reviews. International Journal of Computer Science, Information Technology, and Security (ISSN 2249-9555), vol.4, no.3, pp.55-60, 2014.

PROFESSIONAL SERVICES

Junior Program Committee
- 21st International Conference on Mining Software Repositories (MSR 2024)

External Reviewer
- 45th International Conference on Software Engineering (ICSE 2023)
- 30th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER 2023)
- 37th IEEE/ACM International Conference on Automated Software Engineering (ASE 2022)
- 29th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER 2022)
- 29th IEEE/ACM International Conference on Program Comprehension (ICPC 2021)
- 18th Mining Software Repositories (MSR 2021)

Co-Reviewer
- 19th Mining Software Repositories (MSR 2022))

Teaching Experience

Graduate Teaching Assistant, *George Mason University* — Fall 2018 – Spring 2021
Courses: Object Oriented Programming, Data Structures
- Led a team of five TAs to ensure cohesive collaboration, and proper evaluation and assessment of student projects.
- Facilitated interactive learning environments through lab sessions
- Provided personalized assistance to students during regularly scheduled in-person and virtual office hours

Lecturer (Instructor of Record), *State University of Bangladesh* — Summer 2017 – Spring 2018
Courses: Algorithms, Automata Theory, Image Processing, Discrete Mathematics, Programming Fundamentals
- Formulated engaging lesson plans, led lab sessions, and assessed student performance in exams and projects
- Offered guidance and mentorship to students, addressing academic concerns and providing career advice
- Organized programming contests

Lecturer (Instructor of Record), *The Millennium University Bangladesh* — Fall 2016 - Spring 2017
Courses: Image Processing, Discrete Mathematics
- Assessed student performance providing detailed feedback to support academic growth

Honors & Awards

Outstanding Graduate Teaching Assistant Award, *George Mason University*	2021
Distinguished Graduate Teaching Assistant Award, *George Mason University*	2020
Summer Research Initiation Award, *George Mason University*	2020
CRA-W Grad Cohort 2020 Travel Award, *Computing Research Association for women*	2020
ICT Fellowship, *Bangladesh Government (equivalent of **NSF Graduate Research Fellowship**)*	2016
National Education Board Scholarship, *National Education Board of Bangladesh*	2015, 2007

Selected Research Projects

EMA | Project Lead
- A novel automated approach to enhance mobile application interface during development process
- Designed and implemented the approach as a three-fold process: *App UI analysis, UI modification recognition, UI reconstruction* applying advanced computer vision techniques

AidUI | Collaborator
- A novel automated approach to detect deceptive UI designs
- Contributed in developing the dataset *ContextDP* with instances of deceptive patterns localized to UI screenshots

Academic Affiliations

Association for Computing Machinery (ACM)	2021 – Present
Bangladeshi Graduate Students Association (BDGSA), *George Mason University*	2018 – Present
Ahmadiyya Muslim Student Association for Women (AMSAW), *George Mason University*	2018 – Present

Technical Skills

Languages: Python, Java, C, SQL, HTML5, CSS3
Developer Tools & Frameworks: Android Studio, Jupyter Notebook, Eclipse, Git, JUnit
Libraries: Keras, TensorFlow, Scikit-Learn, Pandas, NumPy, Matplotlib
Documentation System: LaTex

References

Assistant Professor Kevin Moran
Department of Computer Science
University of Central Florida
Room 217A, L3Harris Engineering Center
Orlando, FL 32816, USA
Email: kpmoran@ucf.edu
Phone: (407)-823-3219

Associate Professor Thomas LaToza
Department of Computer Science
School of Computing, George Mason University
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Fairfax, VA 22030, USA
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