

S M Hasan Mansur

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EDUCATION

George Mason University

Ph.D. in Computer Science

Advisor: Kevin Moran

Aug 2018 - Dec 2024 (expected)

George Mason University

M.S. in Computer Science

CGPA: 3.73 | May 2023

Shah Jalal University of Science & Technology, Bangladesh

B.S. in Computer Science

CGPA: 3.54 | Apr 2007

AWARDS

NSF Travel Award

ICSE'23 | April 2023

Best Poster Presentation Award

GMU CS | May 2022

Summer Research Initiation Award

GMU CS | May 2019

PROFESSIONAL SERVICES

Junior PC Member | MSR'24

Co-Reviewer | MSR'22

External Reviewer |

ICSE'23, SANER'23, ASE'22, SANER'22,

ICPC'21, ICSE'21, MSR'21

VOLUNTEERING

ASSIP, GMU

High School & Undergrad Internship

Co-Mentor | May 22 - Aug 22

BDGSA, GMU

Student Organization

Director, Web Services | 2021-22

KIN, SUST, Bangladesh

Humanitarian Organization

Member | 2002-07

TECHNICAL SKILLS

- Python, Javascript, Java, C
- PyTorch, OpenCV, spaCy
- Node.js, Express.js, REST API
- MySQL, MongoDB, Redis, Elasticsearch
- Git, Docker, AWS

REFERENCES

Dr. Kevin Moran

Assistant Professor | CS | UCF

email: kpmoran@ucf.edu

phone: (407)-823-3219

Dr. Thomas LaToza

Associate Professor | CS | GMU

email: tlatoza@gmu.edu

phone: (703) 993-1677

RESEARCH INTERESTS

Software Engineering, HCI, Machine Learning

EXPERIENCE

George Mason University | Graduate Research Assistant

May 2021 - Present

- Working on research projects focused on developing automated approaches to help facilitate Ethical Software Design, Software Evolution, and Software Accessibility

George Mason University | Graduate Teaching Assistant

Aug 2018 - May 2021

- Assisted in mentoring undergrad students, grading assignments, and proctoring exams
- Courses: Introduction to Computer Programming, Database Systems, Computer Vision

Ice9 Ltd., Bangladesh | Software Engineer

Apr 2017 - Jul 2018

- Worked on the engineering and infrastructure team responsible for developing social media query and analytics platforms of project 'smashboard.co'
- Implemented master-replica architecture to resolve the synchronization delay of real time queries from social platforms

Synchronous ICT, Bangladesh | Software Engineer

Feb 2015 - Apr 2017

- Lead the backend engineering team responsible for developing user management and search platforms of project 'ComX'

Dcastalia, Bangladesh | Software Engineer

Aug 2013 - Jan 2015

- Developed and published native Android application 'HE Business Manager'
- Collaborated with the server-side team to design the database & the APIs

Daimler AG, Germany | Student Intern

Oct 2012 - Jul 2013

- Developed a key-value pair parser for environment perception data

Grameenphone Ltd, Bangladesh | System Engineer

Jul 2007 - Feb 2011

- Member of the transmission optimization team to serve over 20 million users

PUBLICATIONS

- Arun Krishnavajjala, **S M Hasan Mansur**, Justin Jose, Kevin Moran, "MotorEase: Automated Detection of Motor Impairment Accessibility Issues in Mobile App UIs", ICSE'24 (to appear)
- Junayed Mahmud, Nadeeshan De Silva, Safwat Ali Khan, Seyed Hooman Mostafavi, **S M Hasan Mansur**, Oscar Chaparro, Andrian (Andi) Marcus, Kevin Moran, "On Using GUI Interaction Data to Improve Text Retrieval-based Bug Localization", ICSE'24, <https://arxiv.org/abs/2310.08083>
- **S M Hasan Mansur**, Kevin Moran, "Toward Automated Tools to Support Ethical GUI Design", ICSE'23: Companion Proceedings, <https://ieeexplore.ieee.org/abstract/document/10172491>
- **S M Hasan Mansur**, Sabiha Salma, Damilola Awofisayo, Kevin Moran, "AidUI: Toward Automated Recognition of Dark Patterns in User Interfaces", ICSE'23, <https://arxiv.org/abs/2303.06782>
- Tyler Wendland, Jingyang Sun, Junayed Mahmud, **S M Hasan Mansur**, Steven Huang, Kevin Moran, Julia Rubin, Mattia Fazzini, "AndroR2: A Dataset of Manually-Reproduced Bug Reports for Android apps", MSR'21, <https://arxiv.org/abs/2106.08403>

SELECTED RESEARCH PROJECTS

AidUI | Principal Contributor | SAGE lab, GMU

May 2021 - Present

- A novel automated approach to detect deceptive UI designs, aka *Dark Patterns*
- Proposed & developed the approach as a four-step process (*Visual Cue Detection, Text Detection, Dark Pattern Analysis & Resolution*) by leveraging Computer Vision and NLP techniques
- Developed the dataset *ContextDP* that includes Dark Pattern instances localized to UI screenshots
- Open-sourced the project artifacts and bundled the approach as a publicly available Docker image

MotorEase | Co-Contributor | SAGE lab, GMU

May 2022 - Present

- A novel automated approach to detect motor-impairment accessibility violations in apps
- Prototyped the initial version of the text detection module to aid in *UI Closure Control Detection*

OPEN-SOURCE PROJECTS

- **Drishtipat** : implementation of different Computer Vision concepts Feb-June 2020
- **Ontorjal** : implementation of DNS client and Distance Vector Routing protocol May-Aug 2020
- **Tasky** : Node.js based REST API boilerplate for a simple task manager May-Jul 2016