Tabassum Mahmud

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EDUCATION

Ph.D. Student in Computer Engineering   Fall2019-Present
IOWA STATE UNIVERSITY   GPA:3.73/4
AMES, IA
B.Sc. in Electrical and Electronic Engineering   Mar2013-Dec2017
CHITTAGONG UNIVERSITY OF ENGINEERING AND TECHNOLOGY   GPA:3.71/4
BANGLADESH

EXPERIENCE

Research Assistant-Data Storage Lab, ECpE, ISU   Fall2019 - Present

- Surveyed existing techniques for bug detection, e.g. Symbolic Execution (S2E, KLEE), Dynamic Analysis (Fuzzing), Static Analysis.
- Explored configuration related issues in the storage stack and storage applications.

Network Engineer-Fiber@Home, Dhaka, Bangladesh   Mar2018 - Nov2018

- Worked in the integration section of Info-Sarkar-III project.

RESEARCH INTEREST

Systems Security, Storage Systems, Distributed Systems

RESEARCH PROJECT AND PUBLICATION

- **Configuration bug detection in the storage stack and storage applications [on going]**
  In this project, we studied configuration bugs in the storage stack and identified the pattern and critical cross-component configuration dependencies. Our aim is to identify the critical cross-component dependencies in the storage stack automatically and use those to check the behavior of the programs when following and violating the dependencies.
  Publication:
  Understanding Configuration Dependencies of File Systems.
  Tabassum Mahmud, Duo Zhang, Om Rameshwar Gatla and Mai Zheng. Proceedings of the 14th ACM Workshop on Hot Topics in Storage and File Systems (HotStorage), 2022.
  Accepted Poster and WiP:
  Understanding Configuration Issues in Storage Systems
  Tabassum Mahmud, Mai Zheng. Work in Progress (WiP) & Poster Sessions, 20th USENIX Conference on File and Storage Technologies (FAST), 2022.

SKILLS

- **Programming Language**
  C, C++, Python
- **Software Testing**
  LLVM, American Fuzzy Lop (AFL), KLEE, S2E
- **Technology**
  Git, Docker
- **Systems**
  File Systems architecture (Specially EXT4), File System Utility Packages (Specially E2fsprogs), File System Testing Suite (xfsprogs)