

Muntaha Tasnim

Research Assistant, University of Utah

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 GitHub

Education

PhD in Computer Science <i>University of Utah</i> ↗ Human Centered Computing, Security and Privacy	01/2025 – present Salt Lake City, UT, United States
BSc. in Computer Science and Engineering <i>University Of Dhaka</i> ↗ CGPA : 3.38 (Last 3 Semesters: 3.69, 3.51, 3.94) Years: 4, Semesters: 8	01/2017 – 08/2021 Dhaka, Bangladesh

Research Interest

- Human-Computer Interaction
- Human-Centered Computing
- IoT Security

Research Experience

Securing Smart Home against Sinkhole Attack using Weight-based IDS Placement Strategy

This research aims to develop an energy-efficient method for detecting and mitigating sinkhole attacks in smart home IoT sensor networks. The solution involves a hybrid intrusion detection system (IDS) by optimal placement of IDS agents using resourceful nodes and mitigates attack by reselecting IDS agents if needed.

Publications

Securing Smart Home against Sinkhole Attack using Weight-based IDS Placement Strategy ↗

IET Wireless Sensor Systems

Md. Shafiqul Islam, Muntaha Tasnim, Upama Kabir, Mosarrat Jahan

Work Experience

Research Assistant <i>University of Utah</i> Advisor: Dr. Sameer Patil ↗	05/2025 – Present
Software Engineer II, QA <i>Therap (BD) Ltd.</i> ↗ • API Testing with test scripts of web application modules using Postman • IoT Device Integration with Mobile and Web application • Integration Testing in a Microservices and REST API Environment • Used Sentry to monitor application errors, exceptions, and crashes. • Mobile application Testing (iOS/Android) • Manual Testing	10/2024 – 12/2024

Software Engineer, QA	10/2022 – 09/2024
<i>Therap (BD) Ltd.</i> ☀	
<ul style="list-style-type: none"> Used Kibana dashboards to monitor logs in real-time. API testing with test scripts of web application modules using Postman Load Testing of web application using Jmeter IoT Device integration testing with web application Database testing in Distributed database system Manual Testing 	

Associate Software Engineer, QA	09/2021 – 09/2022
<i>Therap (BD) Ltd.</i> ☀	
<ul style="list-style-type: none"> Manual Testing 	

Academic Projects

Mediico

Java, Firebase, XML

An Android app developed for the home delivery of medicines from pharmacies. Users can search for their desired medicines and place orders as needed

Working Corner

Javascript,CSS,HTML,Firebase

A web application designed for job finding, catering to individuals of all educational backgrounds, including those with less formal education. The platform offers an easy application process to the authorities and an effective job notice system

Offline Learning Platform

Java

An app developed for offline learning and practicing educational materials for students, allowing usage without internet access.

Hand Gesture Control

Python

An Arduino project created to manipulate mouse or keyboard functions on a laptop through various hand gestures. This includes activities like changing tabs, switching browser tabs, playing, and pausing etc.

DX ball game

C++, BGI

The game DX ball implemented using C++ and Borland Graphics Interface(BGI)

Non-Academic Projects

Moner Shastho - Telepsychiatry Research And Innovations Network Fund project ☀

An android app to promote mental health awareness and monitor the user's state of mind, working towards improvement through features like sharing thoughts, journaling, interactive quizzes, and communication with experts.

BRACathon Health awareness

A hackathon project application designed to raise health awareness and promote self-awareness regarding human rights among rural people and women according to the requirements of the organization.

Achievements

National Girls Programming Contest 2018 (NGPC)

Secured Position within Top 30

BRACathon 3.0

Secured position within top 8

Skills**Programming Skills**

C/C++, Java, Python

Web

HTML, CSS, Javascript

IDE

Putty, Google Collab, Android Studio, IntelliJ Idea

Database

MySQL, NoSQL

API and Load Testing

Postman, Jmeter

Log Monitoring

Kibana, Sentry

Languages**English**

IELTS: L - 8.0, R - 7.0, W - 7.0, S - 7.0, Overall: 7.5

Bangla

Native Language

Extracurricular/Volunteer Experiences**Code Samurai 2019**

Volunteer

- Participated actively in the event's management
- Provided assistance to the contestants

Workshop at Fulki ☸

A school for underprivileged children that uses unconventional teaching method

- Attended a session using games, puzzles, and storytelling to introduce children to computational thinking concepts.