# EHSAN UL HAQUE

Software Engineer Security & Privacy Researcher

#### **Contact**

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#### **About Me**

PhD candidate with experience in research, software engineering, and mentorship. Proficient in designing scalable server-side and database architectures, with expertise in Agile methodologies, full-stack development, and statistical data analysis.

#### **Skills**

Languages C/C++, C#, Java, Python

Frameworks .NET, Next.js

Databases SQL, MySQL, MongoDB

Versioning Git, TFS

CI/CD GH Actions, Docker
Project Repo GitHub, Bitbucket
ORM Entity Framework
Agile Tools Jira, Teamwork
Data Analyses Python, R, SPSS

HCI Tools Qualtrics, MTurk, Prolific

## **Achievements**

#### **Predoctoral Prize for Research Excellence**

University of Connecticut 2023 - 2024

Awarded to the outstanding PhD researchers (2 times).

#### **Best Paper Award**

ACM CHI Conference

2023

The award was given to 35 papers from the 879 accepted papers across 3182 complete submissions: ~1% of total submissions.

## Synchrony Cybersecurity Graduate Fellowship University of Connecticut 2022

Awarded to the promising cybersecurity researchers.

### **Experience**

#### <u>University of Connecticut</u>, Storrs, CT

#### **Graduate Research/Teaching Assistant**

08/2019 - present

- Conducted robust statistical analysis using Python, R, and SPSS to ensure data driven findings, contributing to inform novel findings through publications in usable security & privacy.
- Developed <u>MTurk API helpers using C# and .NET</u>, increasing efficiency and reducing time requirement by automating advanced user-studies on MTurk.
- Wrote a <u>Docker Image to efficiently run OS161</u> on top of Ubuntu 22.04, mitigating the platform-related dependencies while assisting students to quickly setup OS161 environment locally.

#### Enosis Solutions, Dhaka, Bangladesh

#### **Senior Software Engineer**

07/2017 - 07/2019

- Designed and maintained large-scale relational database architectures in MS SQL Server, helped optimizing query efficiency, bringing down latency in high-demand applications.
- Contributed to designing full-stack architectures using C#, .NET MVC. Integrated and managed CI/CD pipelines in development and production environments.
- Mentored 4 newly hired talents by offering technical training, code reviews, and guidance on best practices (SOLID principles), helped efficiently contributing to team environments.

#### Software Engineer

03/2016 - 06/2017

- Developed scalable REST API services using C# and .NET, streamlining integration with front-end components.
- Implemented Data Access Layers using Entity Framework, blending business requirements with efficient data accesses.
- Developed a tool to effectively create offline versions of live web-applications using Shell scripting, enabling webapp availability in low/no Internet scenarios.

#### **Education**

#### PhD in Computer Science and Engineering

University of Connectioncut

02/2025 (expected)

CGPA: 4.0 / 4.0

Research areas: Usable Security & Privacy, Human-Computer Interaction, Al in Security & Privacy

BS in Computer Science and Engineering

Bangladesh University of Engineering and Technology

03/2016

Relevant courses: Data Structures and Algorithms, Databases and DBMS, Artificial Intelligence, Software Engineering

## **Projects**

#### Amazon MTurk API Helpers

C#, .NET, AWS SDK

Curated list of helper functions with ability to perform advanced Requester tasks programmatically on Amazon Mechanical Turk crowdsourcing platform.

#### Tic-Tac-Toe Game

C#, Unity 2D

Recreated the iconic Tic-Tac-Toe game, an engaging player experience against a sophisticated AI opponent. The AI opponent leverages the Minmax with Alpha-beta pruning to evaluate optimal moves for player's strategy.

#### Amazon Scraping and Parsing Toolkit

Python, Poetry, BS4

Python application to scrape and parse amazon product reviews with diverse filtering and keyword searching capabilities.

#### 15 Puzzle Game

Java swing, Docker, AWS

A java swing rendition of the 15 puzzle game. For web compatibility, the app was ported on Webswing, dockerized container is deployed on an AWS EC2 instance.