# Tanvir Rahman

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#### **CAREER OBJECTIVE**

As a Computer Scientist, I have expertise in Multi-agent Systems using Different Machine Learning Algorithms. I am currently developing an Artificial Intelligence technique to help the city of Newark, Delaware to count the number of unique users who are using the public premises and services. This project is linked with my doctoral research that focuses on developing individualized telecommunication alerts, minimizing reliance on conventional video surveillance methods, for the unique users living in Newark. The alert system will prepare the city governance authorities to undertake cost-effective plans and implement monitoring systems for real-time traffic movement, delivery of services, and ensuring public safety. The research will enable better decision-making processes and public policy framework to address the emerging complex and multifaceted governance delivery platforms. Hence, I seek to work at a public policy-technology think-tank to contribute to the technology-governance discourse.

#### **EDUCATION**

# Ph.D. FELLOW IN COMPUTER AND INFORMATION SCIENCES(CIS)

University of Delaware Sep 2021- Present

#### MASTER OF SCIENCE IN COMPUTER SCIENCE

BRAC University Passing Year: 2020 CGPA: **4.00** (on a scale of 4.00) | **Merit Position: 1st** Three VCs' list.

### BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING (CSE)

BRAC University Passing Year: 2018 CGPA: 3.91 (on a scale of 4.00) | Merit Position: 3<sup>rd</sup>

Three VCs' list and Three Dean's list.

#### **EXPERIENCE**

# UNIVERSITY OF DELAWARE

Graduate Teaching Faculty for Summer, Department of Computer and Information Sciences Summer 2022

- Object-Oriented Programming using Java
- Introduction to Computer Science using Python

#### UNIVERSITY OF DELAWARE

Graduate Teaching Assistant, Department of Computer and Information Sciences September 2021-Present

- Object-Oriented Programming using Java
- Introduction to Computer Science using Python

#### **BRAC UNIVERSITY**

Lecturer, Department of Computer Science and Engineering January 2019–August 2021

- Theory lectures on Automata, Technical Communications, Discrete Mathematics, and Object-Oriented Programming
- Labs of Java Programming Language I, II, Computer Networks, Database

## IFIC BANK LIMITED

Management Trainee- Digital Channel and Digital Channel and ET October 2018-January 2019

• Digital Channels and Enterprise Transformation

# MGH GROUP

Management Trainee- IT and Number & Data Analysis June 2018-October 2018

- Number and Data Analysis
- SAP-ABAP programmer

#### BRAC UNIVERSITY

Teaching Assistant- Department of CSE January 2017–September 2017

- Helping students learn how to develop logic and execute them in Java language
- Checking quizzes and assignments

#### PROJECTS & THESIS

#### DRONE DETECTION USING SURF FEATURE AND GLCM METHOD:

Thesis: Detecting drones in protected areas using a hybrid model that uses SURF Feature and GLCM method under Dr. JIA UDDIN.

Technologies used: MATLAB, image processing, machine learning, Neural Networks.

[Published on JIST link: http://jist.ir/Article/15424]

#### **MOVIEMIAN:**

**Database:** A conglomerate of cinema theatres for ticket booking and locations in Dhaka city. It gives the users opportunities to choose between multiple theaters on the basis of preferred criteria.

Technologies used: PHP, HTML, CSS, MySQL.

#### ANDROBOT:

Microprocessor: A robot that can be driven by an Android app while connected; and when not connected,

it can perform on the basis of its learning while being driven by the android app.

Technologies used: Android, Arduino, and RFID.

[Paper accepted in Springer Conference, CNC-2018, Gwalior]

#### WATER MANAGEMENT SYSTEM:

**Interface:** Automated Household Water Supply Monitoring and Billing System. It regulates water supplies and usage and bills them accordingly.

Technologies used: Arduino mega, LCD, Sensors, motor.

[Paper accepted in IEEE ICISC-2018, Tamil Nadu]

### **EXTRA-CURRICULAR ACTIVITIES**

- Five-time National Debate champion in the secondary and higher secondary level.
- Two-time Bangladesh Math Olympiad champion at the secondary level.
- Won prizes in recitation, extempore speeches, and chemistry Olympiads (three-time national champion on higher secondary level).
- Former President- Remians Debating Society, Dhaka Residential Model College.
- Former College Prefect Dhaka Residential Model College.

#### INTERNATIONAL CONFERENCES & PAPERS

- Attended the active living conference in Fort Collins, CO in October 2022.
- Represented Bangladesh at the 1<sup>st</sup> Expo-Asia, Kuwait in 2010.
- Attended and presented a paper in IEEE ICISC 2018 as the first author in Tamil Nadu, India (IEEE proceedings).
- Presented a paper in the CNC-2018, Gwalior on March 22- March 24, 2018 (Springer CCIS proceedings).

# REFERENCES

# Keith S Decker, Ph.D.

Associate Professor, Research Supervisor Computer and Information Sciences, University of Delaware decker@udel.edu

#### **Matthew Saponaro**

Teaching Faculty Computer and Information Sciences, University of Delaware mattsap@udel.edu