MOHAMMAD NAVEED HOSSAIN

Address: House 64, Road 11/A, Dhanmondi, Dhaka-1209
Email: naveedhossain99@gmail.com, Phone no: +8801766388583

EDUCATION

B.Sc. in Computer Science and Engineering at BRAC University, Dhaka
Jan, 2018 – Jan, 2022
B.Sc. in Computer Science and Engineering (B.Sc. CSE). Graduated from the Department of Data Science under the Computer Science and Engineering program with a CGPA of 3.93. out of 4.00.

Higher Secondary Certificate at Milestone College, Dhaka
Sep, 2017
Higher Secondary Certificate (HSC). Passed with GPA 5.00 out of 5.00.

Secondary School Certificate at Junior Laboratory High School, Dhaka
Jun, 2015
Secondary School Certificate (SSC). Passed with GPA 4.83 out of 5.00.

WORK EXPERIENCE

Junior Software Quality Assurance Engineer at Dynamic Solution Innovators Ltd., Dhaka
June 2022 - Present

Understand the given requirements. Write test cases of specific modules. Implement the test cases. Report the bugs. Verifying the fixed bugs also provided training regarding the software.

Student Tutor at BRAC University, Dhaka
February 2020 - January 2022

Provided timely consultation to Programming Language I & Programming Language II students. Checked assignments and quizzes. Made tutorial videos on Digital Logic Design course on YouTube.

Student Mentor at BRAC University, Dhaka
January 2020 - January 2022

Helped first-year students by making them understand academic curriculums. Provided need-based extra classes. Made tutorial videos on how to use different learning platforms of the university.

RESEARCH INTERESTS

- Cyber Security,
- Machine learning
- IoT
- Artificial Intelligence.

RESEARCH EXPERIENCE

- **Implementing Biometric or Graphical Password Authentication in Universal Three-Factor Authentication System**
  - ➔ This paper mentions the current two-factor authentication systems loopholes which were based on password and OTP. This paper proposed an optional three-factor authentication. In the third step, there are two options as well: those who have a good quality smartphone can use biometric passwords, others who want to use the third factor but don't have the requirements to use biometric passwords can use a Graphical password which is a pattern recognition system. That can be used in both mobile phones and personal computers.

- **Utilizing the Internet of Things, Monitoring and Protecting System for Automated Teller Machines**
  - ➔ This paper proposed a security model in ATMs. In the first step, user camera verification launches the system. This camera simplifies transactions. The database's principal user is notified if the camera fails. The user's "yes" authorizes the cash withdrawal. Transacts. If the user says no, that's not generated, this transaction was not done by me, the computer builds a bogus transaction system, like vibrating or calculating notes. If this ATM behaves suspiciously, cops will be called. If the suspect

carries a sharp weapon and customers are in the ATM, cops must come within two minutes and thirty seconds. Clients may suffer. In rare or emergency cases, a chloroform chamber will be built for security. The chloroform chamber will burst, knocking out the culprit and customers.

- **Classification Accuracy Comparison between Machine Learning Algorithms and a Deep Learning Algorithm in Predicting Hand Gestures**
  - ➔ In this paper, the hand gestures dataset has been primarily compiled and machine learning techniques have been applied to it. After determining the precision of the machine learning algorithm, it was compared to the deep learning algorithm. XGBoost was used in machine learning algorithms support vector machine, bagged tree, and random forest. In the algorithm for deep learning, long short term memory (LSTM) was used. In machine learning and deep learning algorithms, precision, recall, F1 score, and accuracy were determined and then compared.

- **Analyzing the Classification Accuracy of Deep Learning and Machine Learning for Credit Card Fraud Detection**
  - ➔ This research aims to categorize a dataset of credit card security concerns using six distinct machine learning (ML) techniques. To be used as classifiers were the Support Vector Machine (SVM), Random Forest (RF), Bagged Tree, K-Nearest Neighbor (KNN), Naive Biased Classifier, and Extreme Gradient Boosting (XGBoost). The classification accuracy of machine learning algorithms was compared to that of Long Short-Term Memory, a categorization approach based on deep learning (LSTM). The greatest accuracy of the KNN machine learning methodology was 97.50 percent, but the LSTM machine learning method had an accuracy of over 96 percent and promised to provide physiologically appropriate control of upper-limb movement. In addition to improving accuracy, this study studied how eliminating the channel with the greatest noise from the algorithms affects accuracy. This was done in an attempt to better efficiently manage data.

- **Traffic Flow Forecasting in Intelligent Transportation Systems Prediction Using Machine Learning**
  - ➔ In this work, a data collection about traffic congestion in the city of Dhaka was compiled. Subsequently, it was used in a variety of machine learning techniques, including support vector machine, random forest, bagged tree, k-nearest neighbor, Naive bias classifier, and extreme gradient boosting. The accuracy recall and F1 score were also recorded, and the outcomes of these algorithms were compared to determine that k-nearest neighbor (KNN) yields the best results.

- **Adding Knock Code Technology as a Third Authentication Element to a Global Two-factor Authentication System**
  - ➔ This paper discusses the present flaw in two-factor authentication systems relying on

passwords and one-time passwords. This study offers a knock-code authentication mechanism as a third element. The standard login and password will be used for the first-factor authentication. The OTP mechanism will be used for second-factor authentication. And the knock-code method will be employed for the third element of authentication. This article describes the intricacy of this form of security system, as well as how this system contributes to an increase in security.

Publications

- 'Classification Accuracy Comparison between Machine Learning Algorithms and a Deep Learning Algorithm in Predicting Hand Gestures' which has been published at ‘2022 32nd Conference of Open Innovations Association (FRUCT)'.
- 'Traffic Flow Forecasting in Intelligent Transportation Systems Prediction Using Machine Learning', published at "IEEE INCOFT 2022".
- 'Implementing Biometric or Graphical Password Authentication in a Universal Three-Factor Authentication System', which has been published at 'IEEE International Conference on Computer Communication and the Internet (ICCCI)'.
- 'Analyzing the Classification Accuracy of Deep Learning and Machine Learning for Credit Card Fraud Detection', published at AJCT, India, 2023.
- 'Utilizing the Internet of Things, Monitoring and Protecting System for Automated Teller Machines', published at AJCT, India, 2023.
- 'Adding Knock Code Technology as a Third Authentication Element to a Global Two-factor Authentication System' was published in IEEE ICSSIT, India, 2023.

PROJECTS

- Self made website fully automating.
- Python based virtual assistant
- Python based image compressor.
- Python based test to voice convertor.
- Online Photographer Reservation.
- Bank Management System.
- Automated Message Sender via WhatsApp.
- Arduino Based Bluetooth Light.
- Arduino Based Sensor Dustbin.

ACHIEVEMENTS

- Graduated with Highest Distinction

- Awarded VC listed 7 times
- Awarded Dean listed 3 times
- Awarded Appreciation Letter by the Chairperson of the Scholarship Committee for excellent
- academic performance.
- Received 50% Merit-Based Scholarship depending on the academic result.
- IEEE online educative video tutorial 4th position

PERSONAL DETAILS

Date of Birth: 5th January 1999
Father's Name: Md. Ali Hossain
Mother's Name: Zareen Hossain
Marital Status: Unmarried
Nationality: Bangladeshi
Religion: Islam
Permanent Address: House 16, Road 9, Block C, Section 6, Mirpur, Dhaka 1216
Blood Group: O (+ve)

REFERENCE

1. Mr. Shahed Alam
Lecturer
BRAC University
66, Mohakhali
Phone no: 01981701444
Email: shahed.alam@bracu.ac.bd

2. Mr. Md. Younus Ali
General Manager, HR
Savoy Ice Cream Factory Limited
Navana Tower, 45 Gulshan Avenue
Gulshan -1
Phone no: 01844696350
Email: y.ali@goldengroup-bd