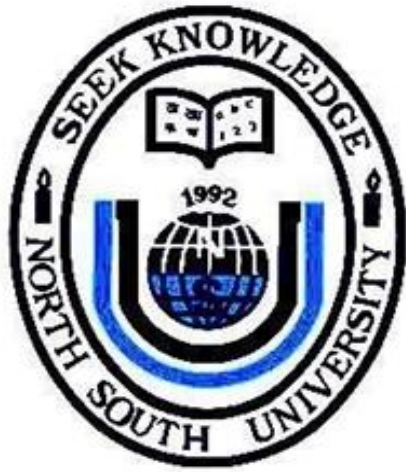


# North South University



Senior Design Project II

## **Phishing Website Prediction Using Machine Learning And Explainable AI**

Tushar Basak ID# 1911858042

Faculty Advisor:

Dr. Mohammad Ashrafuzzaman Khan

Assistant Professor

Department of ECE

Fall 2022

# LETTER OF TRANSMITTAL

December, 2022

To

Dr. Rajesh Palit

Professor & Chair

Department of Electrical and Computer Engineering,

North South University, Dhaka.

Subject: Submission of Capstone Project on “**Phishing Website Prediction Using Machine Learning.**”

Dear Sir,

With due respect, I would like to submit my Capstone Project Report on “Phishing Website Prediction Using Machine Learning” as a part of my BSc program. The report deals with the detection of phishing websites with the help of machine learning models. This project will be valuable in preventing identity theft and hacking. I have taken all the necessary steps to make the report as detailed as possible.

This capstone project was beneficial for me to gain a clear understanding and knowledge about the practical aspects of the project. I carried out all the necessary objectives required for the project's completion.

I will be grateful if you accept this report. I hope this report is informative and beneficial to the field of research on which the project is done.

Sincerely Yours,

.....  
Tushar Basak

1911858042

Department of ECE

North South University, Bangladesh

# APPROVAL

The capstone project entitled “Phishing Website Prediction Using Machine Learning” by Tushar Basak (ID 1911858042) is approved in partial fulfillment of the requirement of the Degree of Bachelor of Science in Computer Science and Engineering in December, 2022 and has been accepted as satisfactory.

Supervisor:

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Dr. Mohammad Ashrafuzzaman Khan

Assistant Professor

Department of Electrical and Computer Engineering

North South University

Dhaka, Bangladesh.

Department Chair:

.....

Dr. Rajesh Palit

Professor & Chair

Department of Electrical and Computer Engineering

North South University

Dhaka, Bangladesh.

## DECLARATION

This is our truthful declaration that the “Capstone Project Report” we have prepared is not a copy of any “Capstone Project Report” previously made by any other team. We also express our honest confirmation in support of the fact that the said “Capstone Project Report” will not be submitted to any other team or authority in future.

.....

Tushar Basak

1911858042

Department of ECE

North South University, Bangladesh

# **ACKNOWLEDGEMENT**

First of all, I wish to express my gratitude to the Almighty for giving me the strength to fulfill my responsibilities to complete the report. I would like to provide our utmost gratitude to our supervisor Dr. Mohammad Ashrafuzzaman Khan for advising and guiding us throughout the project. This project would have not been possible without his guidance. I would also like to thank the ECE department of the North South University for providing me the opportunity to gain knowledge and experience from the project. Finally, I would like to take this opportunity to thank my mother for her unwavering support throughout the completion of my degree and my father for always believing in me.

## **ABSTRACT**

Phishing websites look just like regular websites but are used to hack into other people's servers and steal their information. It is mainly used by hackers who intend to steal user data and identity. These hackers steal the most common user data: our login credentials and credit card numbers. It is difficult for an ordinary human to identify a phishing website from an official and secured website. They can be the target of a phishing attack without even realizing it. The proposed project is on phishing website prediction using machine learning. The objective and project aim is to make predictions about Phishing websites using Machine Learning and Explainable AI. Since it is difficult for users to realize whether the website will hack information, a model is being created to solve the problem. For that, machine learning models will be trained on phishing website features to identify such websites in the future. My Application will guard the user's data leakage through the website. It ensures data protection on different levels, such as personal, organizational, and national.