

#### Contact Information:

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# Taoseef Ishtiak **B.S. in Computer Science and Engineering**

# North South University, Bangladesh

## **Hard Skills** Coding **Data Science Skills** and Tools Database Knowledge **Problem Solving** Soft Skills

**Expertise** 

Leadership

Research

Python

**JavaScript** 

Java

R PHP

Collaboration

**Critical Thinking** 

C++ and Arduino

#### Motivation

I have pursued my B.S. in Computer Science and Engineering from the passion for exploring this field. With the aim, I have the focus to engage in research activities, in the field of Data Science and Machine Learning. Amidst the vast field of computer science, the field of Algorithms, Computer Vision, Data Science, and Machine Learning have attracted me the most. I wish to take higher education in exploring these fields. I also have the ambition to do research on the corresponding field and contribute to the research field, community and industrial development of my country.

### **Educational Background**

B.S.: 2020, from North South University, with CGPA 3.79

Higher Secondary School Certificate: 2015, from Notre Dame College with GPA 5.00

Secondary School Certificate: 2013, from Ideal School and College, with **GPA 5.00** 

#### Field of Interest

Algorithms, Computer Vision, Data Science, Machine Learning and Data Mining.

#### Hobby

Traveling, Reading Books.

#### **Co-curricular Activities**

Debating, Anchoring, Graphics Designing, Science Project Development, Event Organizing, Volunteering.

#### Matlab SQL

**Programming and Query Languages** 

#### Experience

- 1. Currently appointed as Lab Instructor at North South University.
- 2. Research Assistant at North South University in two funded projects.
- 3. Teaching Assistant at North South University for the courses: Java Programming Language, Data Structure and Design and Implementation of Algorithms.
- 4. Member R&D NSU ACM Students Chapter.
- 5. Machine Learning workshop instructor of IEEE NSU Student Branch.
- 6. Sub-Executive NSU ACM Students Chapter-Logistics and Administration.
- 7. Former intern as front end developer at Doctobaari (https://doctorbaari.com).
- 8. President Administration Notre Dame Science Club (Session
- 9. Vice President Administration Ideal Science And Technology Aiming Research Council (Session 2012-13).
- 10. Advisor and Debater Ideal Debating Club (Session 2011-12).

# **Frameworks and Tools**

Laravel Django

Maven Tableau

#### Other Computer Expertise

in English and Bengali

**MS Office** Adobe Illustrator **Adobe Photoshop** 

#### Languages Fluent in Reading, Speaking and Writing

#### **Selected Projects and Research Publications**

- <u>01.</u> Conference Paper: Indexed by Scopus: T. Ishtiak,, S. Ahmed, M.H. Anila, S. Islam, R. Shelim, T. Farah, "Road state classification of Bangladesh with convolutional neural network approach", (2019) WMSCI 2019 23rd World Multi-Conference on Systemics, Cybernetics and Informatics, Proceedings, 4, pp. 129-134 (acceptance rate- 14.9%)
- <u>02.</u> Journal Article: S. Ahmed, T. Ishtiak, A. U. R. C Suhan, M.H. Anila, T. Farah, "Road state classification of Bangladesh with convolutional neural network approach", (2019) Journal of Systemics, Cybernetics and Informatics: JSCI, Volume 17 Number 4 (extended version for journal publication)
- <u>03.</u> Conference Paper: T. Ishtiak, S. Ahmed, M. H. Anila and T. Farah, "A Convolutional Neural Network Approach for Road Anomalies Detection in Bangladesh with Image Thresholding", **2019 Third World Conference on Smart Trends in Systems Security and Sustainability (WorldS4), London, United Kingdom, 2019, pp. 376-382. doi: 10.1109/WorldS4.2019.8903936**
- <u>04.</u> Conference Paper: S. Rezwan et al., "A Minimalist Model of IoT based Sensor System for Sewage Treatment Plant Monitoring", 2019 IEEE 10th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), Vancouver, BC, Canada, 2019, pp. 0939-0945. doi: 10.1109/IEMCON.2019.8936182 (acceptance rate- 40%)
- <u>**05.**</u> Designing an algorithm to detect the number of cracks on a road surface and estimating the surface condition of road with projection in Google Map, from smartphone linear accelerometer and gyroscope.
- <u>06.</u> Implementation of <u>UNet++</u>: A Nested U-Net Architecture for Medical Image Segmentation, introduced by Z. Zhou, M. M. R. Siddiquee, N. Tajbakhsh, and J. Liang arXiv:1807.10165v1 [cs.CV] 18 Jul 2018, on KITS 2019 Kidney and Kidney Tumor Segmentation Challenge.
- <u>07.</u> Feature Engineering and applying tree-based data mining techniques "Human Activity Recognition from Continuous Ambient Sensor" dataset available at University of California Irvine Machine Learning Repository. Based on this project outcome a Conference paper has been submitted and currently under review.
- **<u>08.</u>** Web and Backend system development for Sewage Treatment Plant Monitoring of North South University.
- <u>**09.**</u> Full Stack separate Android and Web Application development for Coastal Disaster Vulnerability Data Collection of Bangladesh.
- <u>10.</u> Crops yield prediction using Machine Learning algorithms based on obtained dataset from Bangladesh Bureau of Statistics and Information Division.
- <u>11.</u> Conference Paper: T. Ishtiak, R. M. Orpon, N. Mashnoor, M. Ahmed and M. A. Nazim, "An advanced application to decrease household power consumption and save energy detecting the weather condition," *2017 8th IEEE Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), Vancouver, BC, 2017, pp. 622-627. doi:* 10.1109/IEMCON.2017.8117168 (acceptance rate- 40%)
- 12. Front End development of Android Mobile Application for Doctorbaari, https://doctorbaari.com.
- 13. An IoT based device to calculate energy consumption and sending data to server automatically.
- **14.** Restful API based Weather Information Collection Web Application based on: Java Maven Framework.
- 15. Bus Ticket Booking System based on: Java Maven Framework.
- **16.** Ekota- The social defender (A social platform to share the critical information of a society).
- **17.** IoT based online Water level indication and automation system for disaster management and industrial usage.

#### **Awards and Achievements**

- 1. Champion of Senior Design Capstone Thesis Project Showcasing "North South University Innovation Challenge Season 8", with the project "A Complete Road Health Monitoring System for Bangladesh".
- 2. 100% tuition waiver recipient based on Academic Performance at North South University.
- 3. 2<sup>nd</sup> Runner of Up IEEE Day Hackathon, 2017.
- 4. 2<sup>nd</sup> Runner Up of NSU Intra University Line Follower Robot Competition Summer 2017.
- 5. Board Scholarship (General Category) in Higher Secondary School Certificate Examination, 2015.
- 6. Board Scholarship (Talent-pool Category) in Secondary School Certificate Examination, 2013.
- 7. Various achievements in scientific project development, extempore speech and Math and Biology Olympiad competitions during Secondary and Higher Secondary School.