

TAOSEEF ISHTIAK

 +8801751651320

 taoseef.ishtiak@northsouth.edu

 <https://taoseefishtiak.github.io>

 <https://github.com/taoseefishtiak>

 <https://www.linkedin.com/in/taoseef-ishtiak-32093ab7>

 Address: Block- C, Road No. 04, House No. 26, Banasree, Rampura, Dhaka-1219, Bangladesh.

Career Objective

I have the aim to engage myself in the software industry to build a career as a machine learning engineer.

Personal Statement

As a recent award-winning graduate, completing B.S. in Computer Science and Engineering, I am motivated to build my professional career as a Machine Learning Engineer. I am fond of learning and working in the domains of Algorithms, Computer Vision, Statistical Machine Learning, and Data Mining related developments. With the experience of being a Sub-Executive body member of one of the most prestigious international student chapters in Computing Association, I have gained my opportunity to get involved in core software development, research activities, leadership, team management and organizational activities.

Technical Skills

Development Expertise

Statistical Machine Learning and Computer Vision-based model architecture.
Back-End/Full-stack web development.

Programming and Query Languages

Python, Java, PHP, JavaScript,
C++, SQL, MongoDB

Frameworks, Libraries and Tools

OpenCV, Keras, TensorFlow, PyTorch, Tableau,
Laravel, Node.js with Express, Laravel,
JavaFX with Maven.

Utilities

Git, Anaconda, Google Colab

Other IT Expertise

MS Office, Adobe Illustrator, Adobe Photoshop,
CorelDRAW, AutoCAD

Language and Communication

Fluent in Reading, Speaking, and Writing in English and Bengali

Interests

Algorithms, Computer Vision, Machine Learning, Reinforcement Learning, Data Mining, and Software Engineering, .

Hobby

Traveling, Reading Books.

Education and Qualifications

2016 - 2019	B.S. Computer Science and Engineering North South University <ul style="list-style-type: none">CGPA 3.79Recipient of Magna Cum Laude Award for academic performance.Awarded the “Champion of Innovation Challenge Season- 8” for best undergraduate Senior Design Capstone and thesis project.
2013 - 2015	Higher Secondary School Certificate Notre Dame College, Dhaka. <ul style="list-style-type: none">GPA 5.00Awarded “Honorable Mention” based on academic result and co-curricular activities.
2013	Secondary School Certificate Ideal School and College. <ul style="list-style-type: none">GPA 5.00

Work Experience

January, 2020 – Present

Lab Instructor

Department of ECE, North South University

- Real time coding in Python, C, and Java
- Digital Logic Design and Computer Architecture based hardware implementation

December, 2017 – Present

Research Assistant

Department of ECE, North South University

- Road state classification and pothole detection system.
- Real time Sewage Treatment Plant Monitoring.
- Coastal Area Vulnerability Assessment.

January, 2019 – December, 2019

Teaching Assistant

Department of ECE, North South University

Courses Taught:

- Java Programming Language
- Data Structure
- Design and Implementation of Algorithms

September, 2019 - Present

Machine Learning workshop instructor

IEEE NSU Student Branch.

May, 2018 – Present

Member of R&D, NSU ACM Students Chapter.

October, 2018 – November, 2019

Sub-Executive

NSU ACM Students Chapter

March, 2017 – November, 2018

Front-End developer at Doctorbaari .

Awards and Achievements

1. Champion in North South University Innovation Challenge Season 8: Senior Design Capstone Thesis Project Showcasing.

Project: “A Complete Road Health Monitoring System for Bangladesh”.

2. Merit-based Waiver Awardee.

100% tuition waiver recipient based on Academic Performance at North South University.

3. 2nd Runner of Up IEEE Day Hackathon, 2017.

Project: “IoT-based An advanced application to decrease household electricity consumption based on weather information.”

4. 2nd Runner Up of NSU Intra University Line Follower Robot Competition Summer 2017.

5. Board Scholarship (General Category) Awardee.

Higher Secondary School Certificate Examination, 2015.

6. Board Scholarship (Talent-pool Category)

Secondary School Certificate Examination, 2013.

7. Various achievements in scientific project development, extempore speech; Math, and Biology

Olympiad competitions during Secondary and Higher Secondary School.

Participation in Co-curricular Activities

1. Technovation 2.0 || 2019.

2. Innovation Challenge Season 8 || 2019.

3. HACK NSU || 2019.

4. Cybernauts || 2018.

5. Esonance. || 2017.

6. National Power and Energy Hackathon || 2017.

7. IEEE Day Hackathon || 2017.

8. Intra University Line Follower Competition. || 2016

9. Bangladesh Academy of Science Olympiad || 2015.

10. 35th National Science and Technology Week. || 2014.

11. Notre Dame Annual Science Festival 2014 and 24th GKC.

Selected Projects

01. Road State Classification with customized CNN and modified **Inception-v4** network.

// October 2018 – March 2019

02. Pothole and Road Crack Detection system with **Semantic Image Segmentation model: YOLACT**, and **Data Mining techniques**.

// January 2019 – January 2020

03. Tree-based feature selection for improving training accuracy on Human Activity Recognition; with **Extra-Tree Classifier and Random Forest**.

// December 2019 – February 2020

04. Statistical Machine Learning for dimensionality reduction (**Backward Elimination**), Full Stack Android and Web Application with **Laravel** development for Coastal Disaster Vulnerability Data Collection of Bangladesh.

// February 2018 – October 2019

05. Implementation of **UNet++: 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.

// October 2019 – December 2019

05. “Groupee”- a web application built with **Node.js and Express** to maintain team management and group tasks.

// October 2018 – December 2018

06. Web and Backend system development for Sewage Treatment Plant Monitoring of North South University: with **PHP and Chart.js**.

// December 2017 – August 2018

08. IoT-based online Environment Data Logger and automatic alarm system for disaster management and industrial usage.

// January 2018 – April 2018

06. An IoT based device to calculate electricity consumption and sending data to with **JavaFX-based desktop application and ngrok** server.

// June 2017 – April 2018

Publications

01. Journal Article: Jakariya, M., Alam, M. S., Rahman, M. A., Ahmed, S., Elahi, M. L., Khan, A. M. S., Saad S., Tamim H. M., Ishtiak T., Sayem S. M., & Ali, M. S. (2020). Assessing climate-induced agricultural vulnerable coastal communities of Bangladesh using machine learning techniques. *Science of The Total Environment*, 140255.

02. 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*.

03. Journal Article: Ahmed, S., Ishtiak, T., Suhan, A. U. R. C., Anila, M. H., & Farah, T. 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)*.

04. 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*.

05. 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*.

09. 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*.