

Shagoto Rahman

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Computer Science and Engineering Discipline,
Khulna University.
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Khulna 9100, Bangladesh.

EDUCATION

2017 - 2022	Khulna University B.Sc. in Computer Science and Engineering	Khulna, Bangladesh.
	CGPA: 3.72 out of 4.0	Class Position: 4th
	Dissertation: "Smartphone-based Skin-cancer detection using Image Processing and Support Vector Machine." Thesis Supervisor: Dr. Kamrul Hasan Talukder.	

GRE Score: 315 (Quant: 164, Verbal: 151, AWA- 4.0).
TOEFL Score: 108 (R: 26, L: 28, S: 26, W: 28)

RESEARCH INTERESTS

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| <ul style="list-style-type: none">• Machine Learning• Deep Learning• Computer Vision | <ul style="list-style-type: none">• Natural Language Processing• Data Science• Artificial Intelligence |
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PUBLICATIONS

S. Rahman, M. Raihan, S. K. Mithila, "Smartphone-based Skin Cancer Detection using Image Processing and Convolutional Neural Network ", *12th INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT)*, Kharagpur, India, 2021. Available: 10.1109/icccnt51525.2021.9579966

S. Rahman, S. Mithila, A. Akther and K. Alam, "An Empirical Study of Machine Learning-based Bangla News Classification Methods", *12th INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT)*, Kharagpur, India, 2021. Available: 10.1109/icccnt51525.2021.9579655

S. Rahman, K.H. Talukder, S. K. Mithila, "An Empirical Study to Detect Cyberbullying with TF-IDF and Machine Learning Algorithms", *International Conference on Electronics, Communications and Information Technology (ICECIT)*, Khulna, Bangladesh, 2021. Available: 10.1109/ICECIT54077.2021.9641251

S. Rahman et al., "Efficient Machine Learning Approaches to Detect Fake News of Covid-19", *Machine Intelligence and Data Science Applications*, pp. 513-525, 2022. Available: https://doi.org/10.1007/978-981-19-2347-0_40

M. Raihan, A. K. Bairagi, **S. Rahman**, "A Machine Learning Based Study to Predict Depression with Monitoring Actigraph Watch Data", *12th INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT)*, Kharagpur, India, 2021. Available: 10.1109/ICCCNT51525.2021.9579614

K. Mumenin et al., "COVID-19 Fake News Detection on Social Media", *International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2)*, 2021. Available: 10.1109/ic4me253898.2021.9768523

Submitted in Peer Reviewed Journals:

S. Rahman, M. Raihan, S. K. Mithila, "Smartphone-based Tomato Leaf Disease Detection using Image Processing Techniques and Convolutional Neural Network."

S. Rahman, K.H. Talukder, "Smartphone-based Skin-cancer detection using Image Processing and Support Vector Machine."

RESEARCH EXPERIENCES

03/2020 - 12/2021	<p>Undergraduate Research Student Computer Science and Engineering, Khulna University. Research Advisor: Dr. Kamrul Hasan Talukder.</p> <p>Project: "Smartphone-based Skin-cancer detection using Image Processing and Support Vector Machine." (Undergraduate Thesis).</p>
03/2021 - 08/2021	<p>DGTED Lab, Khulna University. Research Advisor: Dr. Kazi Masudul Alam.</p> <p>Project: "An Empirical Study of Machine Learning-based Bangla News Classification Methods."</p>
03/2021 - 08/2021	<p>Khulna University. Research Advisor: Dr. Kamrul Hasan Talukder.</p> <p>Project: "An Empirical Study to Detect Cyberbullying with TF-IDF and Machine Learning Algorithms."</p>
05/2021 - 11/2021	<p>North Western University, Khulna.</p> <p>Project: "Efficient Machine Learning Approaches to Detect Fake News of Covid-19."</p>

SEMINAR, CONFERENCE, AND WORKSHOPS

Attended several National and International Seminar, conference and workshops as:

- INTERNATIONAL CONFERENCE ON MACHINE INTELLIGENCE & DATA SCIENCE APPLICATIONS (MIDAS 2021) December 26-27, 2021
- First International Cyber Security Summit 2021. Venue: Khulna University. October 22, 2021.
- An International Conference on "Big Data, IoT and Machine Learning (BIM 2021)", Venue: Cox's Bazar, Bangladesh. September 23-25, 2021.
- An International Conference on "2021 International Conference on Electronics, Communications and Information Technology (ICECIT).", Venue: Khulna University, Bangladesh. September 14-16, 2021.
- An International Conference on "12th INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT).", Venue: IIT, Kharagpur, India (Remote). July 6-8, 2021.
- Online Workshop on Smart City and Smart Village, Venue: Khulna University, Bangladesh. February 27, 2021.

- 30 Coursera online courses on machine learning, deep learning, python, etc., 2020-2021.
- Training on Growing and Understanding your Business with Facebook, Venue: Khulna University. February 17, 2018.
- Ruby on Rails Workshop, Venue: Khulna University. August 12, 2017.

HONORS AND AWARDS

2021	Best Paper Award (INTERNATIONAL CONFERENCE ON MACHINE INTELLIGENCE & DATA SCIENCE APPLICATIONS (MIDAS 2021) December 26-27, 2021.)
2021	Bangladesh Hi-Tech Park (ICT Ministry) Startup Incubation Allotment for SkinCancer Detector.
2021	Bangladesh Hi-Tech Park (ICT Ministry) Startup Incubation Allotment for ChatBot for disabled people.
2017 – 2021	University Merit Scholarship: Class Position and Highest Academic Credentials (Undergraduate Program).
2017 – 2021	Board Scholarship on Higher Secondary Certificate Examination.
2014 – 2016	Board Scholarship on Secondary School Certificate Examination.
2012 – 2014	Board Scholarship on Junior School Certificate Examination.
2012	Prothom Alo Internet Genius Champion.
2009	Divisional Math Olympiad 1 st Runner up.
2008	Divisional Math Olympiad 1 st Runner up.

SKILLS AND TECHNIQUES

Programming: C, C++, C#, Assembly, Java, PHP/MySQL, Python, MATLAB, JavaScript, Android Studio, Visual Studio, Unreal Engine, Unity Engine, React.

Machine Learning

- Supervised Machine Learning.
- Unsupervised Machine Learning.

Deep Learning

- CNN
- RNN, LSTM, BiLSTM

Data Science

- Data Cleaning.
- Manipulation.
- Data mapping.

Natural Language Processing

- TF-IDF.
- Word2Vec.
- Textual Recognition.

Computer Vision

- Object Detection.
- Tensor Flow.
- OpenCV.

Web Programming

- PHP
- SQL Database
- React

Game Development

- Unity 3D.
- Unreal Engine.

PROJECTS

- Android-based skin cancer detector using Image Processing and Machine Learning.
- Android-based skin cancer detector using Image Processing and Convolutional Neural Network.
- Android-based Tomato Leaf Disease detector using Image Processing and Machine Learning.
- Cyberbullying Detector.
- Covid-19-based fake news detector.
- Bangla article classifier.
- Bangla sentiment analyzer.
- Bangla news Similarity and Searching tool for Disabled people.
- Bangla news summarizer for Disabled people.
- Bangla intelligent ChatBot.
- Bangle voice assistant.
- Military Simulator 3D using Unity Engine.
- 3rd Person Zombie Shooter 3D using Unreal Engine.
- Car Racing Game on Khulna Map.
- Computer Graphics (Object Rotation, Translation, Mirror and Scaling.)
- Face Recognition.
- Khulna University Hall and Housing Management.
- Railway management Web Program.
- Railway management Visual Studio version.
- Sugondha Diagnostic Official website.
- Drug Prediction using binary tree.
- Parser and Lexical Analyzer for compiling.
- Numerical Methods analyzer.
- Restaurant Billing System.
- Scientific Calculator.

TEACHING EXPERIENCE

2018 – 2021 Tutoring: Higher Secondary Math, Physics, Biology.

2017 – 2019 Prothom Alo math Olympiad camp.

INTERNSHIP EXPERIENCE

07/2020 - 12/2020 Software Engineering Mentorship Program Intern (Online)
Durbin Labs LTD, Dhaka, Bangladesh.

1/2021 - 6/2021 Research Intern (Online)
Next Solution Lab, Dhaka, Bangladesh.

REFERENCES

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Professor
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Khulna University, Khulna-9208, Bangladesh.
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