

RESEARCH INTERESTS

- Computer Vision, Robotics, Natural Language Processing, Artificial Intelligence, Reinforcement Learning.

EDUCATION

- **Shahjalal University of Science and Technology (SUST)** **August, 2014 - August, 2018**
BSc(Engg.) in Computer Science and Engineering
CGPA: **3.91/4.00**, 1st in a class of 65 students.

EXPERIENCES

- **Lecturer, Department of CSE, SUST** **July 2019 - Present**
 - **Taught Courses:** Basic competitive programming, Database Management Systems, Software Engineering and Design Patterns, Web Engineering.
 - Research Associate, Natural Language Processing research groups, SUST
- **Software Engineer, Samsung Research and Development Institute, Bangladesh** **September, 2018 - June, 2019**
 - Robot simulation project. Controlling movements and various actions of a robot using Samsung Galaxy Tab S4. Also object detection and recognition tasks performed by the robot.
 - Baby crying sound detection on Android devices using Tensorflow Lite.
 - Implementation of unique gesture detection (Android and Tizen platforms).
 - Develop and understand storage system for various cross platform cellular devices.
 - Sensor data collection from smartphones, smartwatches and their analysis.
- **Competitive Programming Trainer for undergraduate students of department of CSE, SUST**
- **Competitive Programming Trainer for undergraduate students of department of CSE, Sylhet International University**
- **Problem Setter:** Set competitive programming problems and wrote alternate solutions for several programming contests including NEUB Junior Inter University Programming Contest 2017, Varendra University Inter University programming contest 2017 and SUST Intra University Programming Contest, 2017.

RESEARCH AND PUBLICATIONS

- **A. S. Sharma**, M. A. Mridul and M. S. Islam, "Automatic Detection of Satire in Bangla Documents: A CNN Approach Based on Hybrid Feature Extraction Model," 2019 International Conference on Bangla Speech and Language Processing (ICBSLP), Sylhet, Bangladesh, 2019, pp. 1-5, doi: 10.1109/ICBSLP47725.2019.201517. **[IEEE Best Paper Award, awarded by ICBSLP, 2019]**
Tools Used: Python, NLTK, Word2Vec, Doc2Vec, Tensorflow. Also used *Selenium* and *Scrapy* for crawling textual data from different websites.
- **A. Sen Sharma**, M. Ahmed Mridul, M. Jannat and M. Saiful Islam, "A Deep CNN Model for Student Learning Pedagogy Detection Data Collection Using OCR," 2018 International Conference on Bangla Speech and Language Processing (ICBSLP), Sylhet, 2018, pp. 1-6, doi: 10.1109/ICBSLP.2018.8554701.
Tools Used: Python, Tensorflow, Keras.
- **Offline Handwritten Signature Recognition** a project aimed to identify the handwritten signature of a person from an image. We achieved an accuracy rate of 96.41% using CNNs for a dataset containing signatures of 50 different people
Tools Used: Python, Tensorflow, Keras.

ACHIEVEMENTS

- Secured 3rd place in **SAMSUNG Research ROBOT HACKATHON-2018** as part of the team **SRBD_Hyperbola**.
- **Onsite Programming Contests**
 - ACM ICPC ASIA Regional Dhaka Site 2017, Rank : 21, (SUST_PeakSeeker)
 - ACM ICPC ASIA Regional Dhaka Site 2016, Rank : 11, (SUST_DeapThunder)
 - IUBAT IUPC, Rank : 4, (SUST_DeapThunder)
 - BSCCL National Programming Contest (Hackathon) at UITS, Rank : 6, (SUST_1)
 - LU Inter University Programming Contest 2016, Rank : 4, (SUST_BlackJAM)
- **Education Board Scholarship** at classes V, VIII and X, awarded by Ministry of Education, Government of Bangladesh.

ACADEMIC PROJECTS

- **Algorithm Simulator** *a desktop application aiming to help newbie competitive programmers to get a basic understanding of vastly used basic algorithms, data structures and different kinds of sorting techniques.*
Tools and Language Used: Java
- **DareIt?!** *an arcade game for android platform.*
Tools Used: Unity, C#
- **Travel Santa** *a web application aiming to help tourists to find hotels and restaurants near tourist spots.*
Tools Used: Laravel 4.8, PHP, HTML, CSS, JavaScript
- **Shurodhwani** *an online audio sharing and listening platform.*
Tools Used: Laravel 5, PHP, HTML, CSS, JavaScript, AJAX, jQuery
- **EduHelper** *a web application aiming to help teachers in making and sharing tutorials.*
Tools Used: Laravel 5, PHP, HTML, CSS, JavaScript, AJAX, jQuery

TECHNICAL SKILLS

- **Programming Languages :** Python, C++, Java
- **Database:** SQL, MongoDB
- **Game Engine:** Unity2D
- **Web Development Framework:** Laravel-5
- **Machine Learning Libraries:** Tensorflow, PyTorch

REFERENCES

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