

# Shotonu Mitra

GRADUATE · CSE

Dhaka, Bangladesh

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## Education

### Military Institute of Science and Technology (MIST)

BACHELOR OF SCIENCE- CSE

- Overall CGPA: 3.65 (Out of 4.00)

Dhaka, Bangladesh

Feb,2018- May,2022

### Holy Cross College

HIGHER SECONDARY SCHOOL CERTIFICATE- SCIENCE

- GPA- 5.00 (Out of 5.00)

Dhaka, Bangladesh

2015 - 2017

### Holy Girls High School

SECONDARY SCHOOL CERTIFICATE- SCIENCE

- GPA- 5.00 (Out of 5.00)

Dhaka, Bangladesh

2010 - 2015

## Research Experience

### Undergraduate Thesis - Dept of CSE,MIST

ADVISOR: MUHAMMAD SHAJAHAN MAJIB

- Thesis Title: "Detection and Prevention of Cyberbullying from Social Media by Exploring Machine Learning Algorithms"

Dhaka, Bangladesh

July. 2021- Mar. 2022

### Undergraduate Research Work - Dept of CSE, MIST

ADVISOR: DR. MUHAMMAD NAZRUL ISLAM

- Summery : Machine Learning and AI based research work in the domain of Health Care and Human Computer Interaction

Dhaka, Bangladesh

2021-Present

## Publications

### PUBLISHED

**S. Mitra**, T. Tasnim, M. A. R. Islam, N. I. Khan and M. S. Majib, "A Framework to Detect and Prevent Cyberbullying from Social Media by Exploring Machine Learning Algorithms," 2021 International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2), 2021, pp. 1-4, doi: 10.1109/IC4ME253898.2021.9768450

### IN REVIEW

Muhammad Nazrul Islam, Kazi Rafid Raiyan, **Shotonu Mitra**, M. M. rushdul Mannan, Tasfia Tasnim, Ashima Oshin Putul, Sbm Angshu. "Predictis : An IoT and Machine Learning based Application to Predict Risk Level of Cardio-Vascular Disease" On-going Research (2021)

### IN PREP

PPD COACH : An Application for detecting Postpartum Depression in Bangladeshi Mothers using Visual Questionnaires." On-going Research (2022)

## Notable Projects

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- Cyberbully Detection & Classification:** , A machine learning, neural network and natural language processing based project with an aim to find the best performing model for detecting and classifying cyberbully from collected Twitter data.
- Opinion Mining of Tweets Related to Mental Health:**, An Exploratory Data Analysis based project to reflect public opinion related to common mental health problems such as anxiety, depression, OCD, schizophrenia, PTSD etc. through time-series analysis from collected twitter data.
- Predictis:**, A medical decision making diagnosis system, which is an Android Application that predicts its user's future possibility of having Cardio-vascular diseases using Machine Learning, Data Analytics and IOT.
- PPD Coach:**, A HCI based research project, for the purpose of recognizing if graphical scenery based screening tool proves to be more effective than standard screening tool. Technologies used are- Android & Graphic Design.
- ASMA:**, A database project for saloon management system with database architecture for effective employee, customer, inventory and saloon services management system along with online appointment feature, using Oracle, SQL, HTML, CSS and PHP.
- A Game of Cyphers:**, A program in C applying popular encryption algorithms to encrypt the given message.

## Key Skills

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**Languages:**, C, C++, Python, Java, SQL, Matlab

**Web Development:**, HTML, CSS, JavaScript, PHP, Bootstrap.

**Analytic Skill:**, Data visualization (Tableau, Python), Machine Learning (Python), Neural Network (Tensorflow), Natural Language Processing.

## Extracurricular & Volunteering

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- Inter University Girls' Programming Contest (IUGPC- Season 2) arranged by North South University
- National Girls Programming Contest 2018
- ICPC Dhaka Regional 2019
- Organizer: National Collegiate Programming Contest 2021