

SHOVITO BARUA SOUMMA

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🌐 Webpage: <https://shovito66.github.io/portfolio/> in shovito-buet 🌐 shovito66

PROFESSIONAL APPOINTMENTS

IQVIA

Software Engineer

Working on OA Project with US team

SEP 2022 – PRESENT

Dhaka, Bangladesh

East Delta University(EDU)

Adjunct Faculty

Dept. of CSE, School of Science Engineering & Technology

MAY 2022 – SEP 2022

Chittagong, Bangladesh

Part Time Research Assistant(RA)

e-SRD Lab, CSE, BUET

Involved in two R&D Govt projects funded by DGHS and ICT Division, Bangladesh.

FEB 2021 – APRIL 2022

Dhaka, Bangladesh

Instructor

UDVASH, Academic & Admission Coaching

2017 – 2019

EDUCATION

Bangladesh University of Engineering & Technology (BUET)

Pursuing M.Sc in Computer Science and Engineering

JULY 2022 – Present

Dhaka, Bangladesh

Bangladesh University of Engineering & Technology (BUET)

B.Sc in Computer Science and Engineering

CGPA: 3.35/4.00

In Major CGPA: 3.41/4.00

CGPA of Final 4 Terms: 3.65/4.00

Got Dean's List Award in 7th and 8th semesters.

FEB 2017 – MAY 2022

Dhaka, Bangladesh

OBJECTIVE

Being adhere to perspective research works and rigorous innovative aspects. I am aspirant to involve myself in learning and implementing new methodologies and paradigms. I belief in self-motivation, perseverance and cooperative educational process which incorporates correlation of different domains. I believe in collaborative teamwork which is an immaculate prospect for achieving success in research activities. I would like to flourish as a potential academician in the Engineering discipline and willing to serve humanity.

SKILLS SUMMARY

Languages: Python, Java, C, C++

Frameworks: Scikit, TensorFlow, Keras, Git, Django, NodeJS

Tools & IDE: VS Code, Android Studio, IntelliJ, Jupyter Notebook

Database: MySQL, PostgreSQL, Oracle, Mongo

Soft Skills: Event Management, Writing

COURSEWORK [Selected]

- | | | |
|---|-------------------------------------|------------------------------|
| • Structure Programming and OOP (C,C++, Java) | • Networking & Security | • Machine Learning |
| • DS & Algorithms | • Database Management System (DBMS) | • Human Computer Interaction |
| • Operating Systems | • Artificial Intelligence | • High Performance Database |

RESEARCH INTEREST

HCI, Applied Machine Learning & Computer Vision, Health Informatics

RESEARCH EXPERIENCE

- Impact of Social Media on Family Bondage** (HCI, Sociology, Human Psychology) 2022
- under the supervision of *Prof. Dr. A B M Alim Al Islam*, CSE, BUET.
 - On the basis of my proposal, we will examine if the use of social media in Bangladesh contributes to a breakdown in communication between family members. The Thematic technique will be used to collect and evaluate data from the recorded audio scripts of our interviewees in order to identify a pattern.
- Warehouse Design for Health Sectors and Outbreak Prediction** (DL, Health Informatics, Database) 2021-2022
- under the supervision of *Prof. Dr. Abu Syed Md. Latiful Haque*, CSE, BUET.
 - As part of my **undergraduate thesis**, I designed a National Clinical Data Warehouse (NCDW) for integrating heterogeneous clinical data from many sources on a big data platform while maintaining privacy and uniformity. These platforms enhance descriptive, diagnostic, predictive, and prescriptive analysis and research for a wide variety of diseases. I've proposed a modified architecture for our existing NCDW that incorporates environmental and demographic elements to facilitate the analysis of a parasite disease called Dengue. Two main objectives using the dengue datamart are listed below:
 1. To develop a model to predict the number of cases of a given month of a given district using existing data.
 2. To develop a predictive model of the number of cases in succeeding months using data of an index month
- Botnet Detection Using Machine Learning** ML, Security 2020-2021
- under the supervision of *Prof. Dr. A.K.M Ashikur Rahman*, CSE, BUET.
 - There are various approaches for detecting botnets, but none of them are universal. As a result, these are effective in detecting just a subset of botnets. I'm attempting to construct a feature selection algorithm using a diversified (containing 16 different types of botnets) dataset. Then, using these traits, I'll apply ML models to classify the network traffic whether it is benign or botnet. Currently some of my classmates are working on this as their thesis project based on my idea.

PUBLICATIONS

- **Shovito Barua Soumma**, Md. Nazmul Islam, Plabon Paul and Faisal Bin Ashraf, "*Finding Efficient Feature Extraction and Classification Architecture for Brain Tumor Detection from MRI Image*", Proceedings of 25th International Conference on Computer and Information Technology (ICCIT 2022), December 17-19 [↗](#)
- **Shovito Barua Soumma**, Ishraq R. Rahman and Faisal Bin Ashraf "*Machine Learning Approaches to Metastasis Bladder and Secondary Pulmonary Cancer Classification Using Gene Expression Data*", Proceedings of 25th International Conference on Computer and Information Technology (ICCIT 2022), December 17-19 [↗](#)
- Ajoy Das, **Shovito Barua Soumma**, Kanak Das, and Md Shohrab Hossain, "*Analysis of Security Implementation of Popular Android Applications Developed in Bangladesh*", BGD e-GOV CIRT Monthly Magazine September 2021 [↗](#)
- **Shovito Barua Soumma**, and Md Shohrab Hossain, "*Comparative Analysis on Different Periodic Versions of Bangladeshi App*", BGD e-GOV CIRT Monthly Magazine October 2021 [↗](#)

PROJECTS

- Tuberculosis Detection using Chest X-ray with Deep Learning** [↗](#) | CoLab, Numpy, Panda, CNN 2022
- In this work, I have detected TB reliably from the chest X-ray images using image pre-processing, data augmentation and deep-learning classification techniques. Four different deep CNNs (ResNet18, ChexNet, InceptionV3, and MobileNet) were used for transfer learning from their pre-trained initial weights and were trained, validated and tested for classifying TB and non-TB normal cases.
- Online Book Sharing Platform** [↗](#) | Nodejs, ReactJs, MongoDB 2021
- Online Book-selling and giveaway platform. Users can purchase books from their local bookstores and even add sale posts. Additionally, users may donate their unused old books.
- Algorithm Simulator** [↗](#) | JavaFX, Java, InelliJ 2018
- Aim of this project was to get familiar with OOP language, GUI designing, and simulate different algorithms visually by taking input from users.
- Portable Heart Rate Monitoring System** [↗](#) | AtMega32, HC-05 Bluetooth Module, LCD Display 2020
- Using AtMega32 micro-Controller, HC-05 Bluetooth Module, 16x2 LCD Display & Android Device

EXTRACURRICULAR

ABSB

2020 – Current

Vice President

Dhaka

- Create a society- free of exploitation, discrimination and violence to enable to reach its ultimate socio economic potential. Enable people to stand up and become leaders in the dissemination of information that directly addresses the importance of humanity.

Badhon, BUET Branch



2017 – 2022

Member


Dhaka

- Initiating social movement to build up a healthy society through motivating voluntary blood donation, donating blood voluntarily and others services and awareness programs.

AWARDS/ACHIEVEMENTS


- [2022] Got Dean's List Award in 7th and 8th semesters.
- [2022] Selected for Part-time Research Assistant at SPARRSO
- [2021] Selected for Top 30 Idea, Mujib 100 Idea Contest, by University Grants Commission (UGC) of Bangladesh and the Ministry of Education
- [2020] Champion, Poster Presentation Competition, University Day 2020, RUET [YouTube ] [Poster 
- [2019] Runner Up, Innovative Project Idea Contest, University Day 2019, KUET
- [2014] Vocational Board Scholarship by Govt. Bangladesh for outstanding performance in SSC

CERTIFICATIONS


- [2020] Certification for participating in Innovative Project Idea Contest, University Day 2020, RUET 
- [2013] Certification for participating in Bangladesh Physics Olympiad
- [2012] Certification for participating in Bangladesh Math Olympiad

REFERENCES


- **Dr. Md Shohrab Hossain**

Professor, Department of Computer Science and Engineering
Bangladesh University of Engineering & Technology, Dhaka-1000 , Bangladesh.
Email: mshohrabhossain@cse.buet.ac.bd


- **Dr. Abu Sayed Md. Latiful Hoque**

Professor, Department of Computer Science and Engineering
Bangladesh University of Engineering & Technology, Dhaka-1000 , Bangladesh.
Email: asmlatifulhoque@cse.buet.ac.bd

- **Dr. A.K.M. Ashikur Rahman**

Professor & Former Head, Department of Computer Science and Engineering
Bangladesh University of Engineering & Technology, Dhaka-1000 , Bangladesh.
Email: ashikur@cse.buet.ac.bd

- **Dr. Md. Ishtiaque Aziz Zahed**

Associate Professor, School of Science, Engineering and Technology
East Delta University, Chittagong-4209, Bangladesh.
Email: ishtiaque@eastdelta.edu.bd