ANIKA ISLAM

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in Anika Islam | 🞧 anikabytes |

Dhaka, Bangladesh

EXPERIENCE

Physics - The Study Town [6]

October 2023 - Present

Dhaka, Bangladesh

EDEXCEL Physics Teaching Assistant

- Conducted online classes for students and helped them in problem solving for 2 months.
- Invigilate monthly exams and mock tests.
- Check and grade exam scripts.

Chemistry - The Study Town [6]

February 2025 - March 2025 | August 2023 - October 2023

Dhaka, Bangladesh

EDEXCEL IGCSE Chemistry Teaching Assistant • Checked and graded exam scripts.

BRAC University []

February 2024 - January 2025

Dhaka, Bangladesh

- CSE Student Tutor/ Undergraduate Teaching Assistant (TA) • Served as CSE111 (Programming Language II) Student Tutor (ST) for 3 semesters
- Provided offline and online consultations
- Assisted lab faculties in conducting lab classes
- Assisted students in problem solving and provided academic supports
- Checked and graded lab assignments and quiz scripts
- Provided constructive feedback on assignments and quiz

MQ's School of Mathematics [6]

June 2023 - July 2024

Dhaka, Bangladesh

- EDEXCEL IAL Mathematics Teaching Assistant
- Conducted extra classes to assist students in their academics and problem solving.
- Prepared mark schemes and question papers for monthly exams and mock tests.

EDUCATION

BRAC University

February 2021 - February 2025

Dhaka, Bangladesh

o CGPA: 3.98/4.00

• Maple Leaf International School

Bachelors of Science in Computer Science and Engineering

June 2018 - January 2021 EDEXCEL IAL Dhaka, Bangladesh

• Grade : 2 As & 2 Bs

• Maple Leaf International School

June 2017 - June 2018 EDEXCEL IGCSE Dhaka, Bangladesh

• Grade: 6 A*s & 3 As

- Programming Languages: Python, Java, C, Javascript
- Web Technologies: React JS, Tailwind CSS, HTML, CSS, PHP
- Database Systems: MySQL
- Data Science & Machine Learning: Numpy, Pandas, Scikit-learn, Matplotlib, Tensorflow
- DevOps & Version Control: Git, Github
- Mathematical & Statistical Tools: MathLAB, Excel
- Platforms & OS: VScode, Jupyter Notebook, Google Colab, Kaggle, Linux
- Other Tools & Technologies: Capcut, Photoshop, Picsart
- Research Skills: LaTeX, Literature Review, Data Analysis, Statical Interfence, Experimental Design
- Soft Skills: Time Management, Critical Thinking, Teamwork and Collaboration

PROJECTS

Plant Image Segmentation Using U-Net

December 2024 - January 2025

Tools: Tensoflow

- Individual Contribution :-
- Preprocessed the dataset
- Worked on the evaluation metrics such as Mean IoU, Mean Dice Coefficient and Pixel Accuracy
- Fine tuned the hyperparameters such as batch size, image size and epochs for better accuracy
- Helped group mates in building U-Net model from scratch

Course Tracker [Live Demo]

October 2024

Tools: React JS, Tailwind CSS, GitHub, Excel



- Brief Description: Both desktop and mobile responsive website for accessing available course contents.
- Implemented features such as prompts appear for incomplete courses and unavailable course contents, course contents stored in GitHub repository and spreadsheet.
- Developed User friendly UI.
- Website has been made live through GitHub pages.

Grading System [Live Demo]

October 2024

Tools: React JS, Tailwind CSS, GitHub



- Brief Description: For mock/class test marks calculation and grading of EDEXCEL O'Level and A'Level.
- Implemented features such as user inputs, calculating the numbers obtained by deducting the marks lost, visual representation of the marks obtained by all students in tabular form and statical representation. Results can be downloaded.

DIY Design And Collaboration Website

February 2024 - May 2024

Tools: MERN



- Individual Contribution :-
- Contributed in the frontend by using React JS and Tailwind CSS
- Implemented the component for Navigation bar and complete UI for Design Clothes
- Introduced features like add text, change text color and size, move text on the cloth, change size of clothes for male and female separately, color palette configuration and save the design in the Design Clothes page.

Stress Level Detection

February 2024 - May 2024

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Tools: Scikit-learn, Matplotlib

Individual Contribution :-

• Pre-processed the dataset.

- Implemented the models on the pre-processed dataset.
- Implied comparison analysis using confusion matrix, classification report and prediction accuracy.

• Tic Tac Toe February 2024 - May 2024

Tools: 8086 Assembly Language

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- Individual Contribution :-
- Implemented the feature where game ends when a player wins

• Snake Animation Game

September 2023 - December 2023

Tools: OpenGL



- Individual Contribution :-
- Handled snake movement and food allocation using Midpoint Circle Algorithm and Midpoint Line Algorithm respectively.
- Designed the food color for each scores
- Introduced features like dark and light mode and snake length increment.

Music Streaming Service

February 2023 - May 2023

Tools: HTML, PHP, CSS, mySQL



- Individual Contribution :-
- Implemented login and logout seperately for both Admin and End Users.
- Designed the UI for both Admin and End Users.
- Introduced change password feature during login
- · Connected the frontend and backend together using mySQL and PHP

RESEARCH WORK

Survey on Review Papers

Fields: Machine Learning, Artificial Intelligence

Supervisor: Md. Sabbir Ahmed

October 2024 - Present Lecturer, BRAC University []

• HCI Research on Education in Bangladesh using GAI and LLM models

Fields: Human Computer Interaction (HCI)

Supervisor: Md. Sabbir Ahmed

March 2025 - *Present Lecturer, BRAC University* [♠]

• Evaluating the Efficacy of GAN-Generated Synthetic Medical Images in Enhancing Deep Learning -Based Diagnosis of Rare Diseases

Domain: Medical Fields: Image Processing, Deep Learning, Explainable Artificial Intelligence

September 2023 - February 2025

Supervisor: Md. Tawhid Anwar **Co-supervisor:** Md. Sabbir Ahmed

Senior Lecturer, BRAC University [)

Lecturer, BRAC University [)

HONORS AND AWARDS

• BRAC University Vice Chancellor's List

2025

BRAC University

• Appeared 11 times for maintaining a GPA of 3.90 or more in consecutive 11 undergraduate semesters.

• BRAC University Merit Scholarship

June 2021 - Febrary 2025

BRAC University

- \circ Received 75% scholarship for maintaining a CGPA between 3.95 3.99 for 5 consecutive semesters
- Received 100% scholarship for maintaining CGPA 4.00 for 3 consecutive semesters

 Received 50% scholarship for previous academics for 3 consecutive semesters Participation Certification - Database Wizard of BUCC IntraHactive 1.0 2024 **BRAC** University $[\mathbf{T}]$ • For participating in the final round of Database Wizard segment of BUCC IntraHactive 1.0 • All Girls Best Team - Intra University Programming Contest (IUPC), 2022 2022 **BRAC** University For performing best in the Intra University Programming Contest (IUPC), 2022 AHZ Awards 2021 AHZ Associates $[\mathbf{T}]$ • For acquiring 2 As inMay 2020 EDEXCEL IAL examinations A'Level Merit Based Scholarship June 2018 - January 2021 Maple Leaf International School • 50% scholarship in A'Level for acquiring 6 A*s in IGCSE • Pearson Edexcel Excellence Awards 2019 Pearson Edexcel \P • For acquiring 6A*s & 3As in May 2018 EDEXCEL IGCSE examinations • The Daily Star Awards 2019 The Daily Star $[\mathbf{T}]$ • For acquiring 6A*s & 3As in May 2018 EDEXCEL IGCSE examinations

Volunteer Experience

• The Daily Sun Awards

• BRACU Fall'24 Admission Test Volunteer

September 2024

2019

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Volunteer

The Daily Sun

- Provided them with all the necessary informations.
- Assisted the guards in maintaining the crowd at the front gate.

• For acquiring 6A*s & 3As in May 2018 EDEXCEL IGCSE examinations

REFERENCES

1. Md. Tawhid Anwar

Senior Lecturer, Department of Computer Science and Engineering

BRAC University

Email: tawhid.anwar@bracu.ac.bd

Relationship: CSE110 & CSE111 Course Instructor, Thesis Supervisor, ST Coordinator

2. Md. Sabbir Ahmed

Lecturer, Department of Computer Science and Engineering

BRAC University

Email: sabbir.ahmed@bracu.ac.bd

Relationship: Thesis Co-Supervisor, ST Supervising Faculty, ST Coordinator, Research Supervisor