ANIKA ISLAM

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in Anika Islam | ⭘ anikabytes |

Dhaka,Bangladesh

EXPERIENCE

• **Physics - The Study Town [⬤]**   *October 2023 - Present*
EDEXCEL IAL Physics Teaching Assistant   Dhaka,Bangladesh
  ◦ 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.

• **BRAC University [⊕]**   *February 2024 - January 2025*
CSE Student Tutor/ Undergraduate Teaching Assistant (TA)   Dhaka,Bangladesh
  ◦ 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 [⬤]**   *June 2023 - July 2024*
EDEXCEL IAL Mathematics Teaching Assistant   Dhaka,Bangladesh
  ◦ Conducted extra classes to assist students in their academics and problem solving.
  ◦ Prepared mark schemes and question papers for monthly exams and mock tests.

• **Chemistry - The Study Town [⬤]**   *August 2023 - October 2023*
EDEXCEL IGCSE Chemistry Teaching Assistant   Dhaka,Bangladesh
  ◦ Checked and graded exam scripts.

EDUCATION

• **BRAC University**   *February 2021 - Present*
Bachelors of Science in Computer Science and Engineering   Dhaka,Bangladesh
  ◦ CGPA: 3.98/4.00

• **Maple Leaf International School**   *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

SKILLS

- **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
- **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.

- **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*
  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 [🔗]
  - **Individual Contribution :-**
  - Implemented the feature where game ends when a player wins

- **Snake Animation Game** *September 2023 - Decemeber 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

- **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.

RESEARCH WORK

- **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 - Present

  Supervisor: Md. Tawhid Anwar *Senior Lecturer, BRAC University* [⊕]
  Co-supervisor: Md. Sabbir Ahmed *Lecturer, BRAC University* [⊕]

- **Survey on Review Papers**
  Fields: Machine Learning, Artificial Intelligence *October 2024 - Present*
  Supervisor: Md. Sabbir Ahmed *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
  - 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 [🏆]
  - 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
  ◦ 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
  ◦ For acquiring 6A*s & 3As in May 2018 EDEXCEL IGCSE examinations

- **The Daily Star Awards** *2019*
  The Daily Star
  ◦ For acquiring 6A*s & 3As in May 2018 EDEXCEL IGCSE examinations

- **The Daily Sun Awards** *2019*
  The Daily Sun
  ◦ For acquiring 6A*s & 3As in May 2018 EDEXCEL IGCSE examinations

VOLUNTEER EXPERIENCE

- **BRACU Fall'24 Admission Test Volunteer** *September 2024*
  Volunteer
  ◦ Volunteered aspiring candidates and their parents
  ◦ Provided them with all the necessary informations.
  ◦ Assisted the guards in maintaining the crowd at the front gate.