Farjana Alam

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Education

BRAC University, Dhaka, Bangladesh

Jan 2020 – Oct 2024

- B.Sc. in Computer Science (CS) CGPA: 3.69 on a scale of 4
- Coursework: Programming and problem solving, Data structures & Algorithms, Software engineering, Data Science, ML, NLP, AI, Machine Vision, HPC, Database Systems, Computer Networks.

Languages and Technologies

- Machine Learning: Feature Engineering, Statistical Modeling, Data Analysis, Image processing.
- Languages and Frameworks: C, C++, Python, JavaScript, SQL, Django Web Framework.
- Technologies and Tools: TensorFlow, Numpy, Pandas, PyTorch, Matplotlib, Scikit-learn, Power BI.
- Others: HTML, CSS, Bootstrap, Git, PyGame, OpenCV, Office 365 Suite (Excel, PowerPoint, Word).

Projects

• Find Your BRACU Mates - GitHub

- Created a user management system using PHP, MySQL, HTML, CSS, and Bootstrap, supporting three user roles: Students, Blood Donors, and Alumni.
- Built search functionalities that allow users to connect based on shared interests and categories (Students, Alumni, Blood Donors).
- Integrated secure registration and login features, including age verification (18+), weight requirements (40+ KG) for Blood Donors, and student ID validation for Students.
- Enhanced user experience by ensuring unique email and ID for each user profile.
- Added "FAO" and "Lost & Found" sections, enabling users to ask questions and report found items.

• The Dogge Game - GitHub | Live

- A PyGame based funny game project. The idea is based on viral memes and Bengali regional meme audio.
- Interactive gaming experience where players control the character to navigate through various obstacles.
- Keeps track of minimum, average, and maximum scores.
- Includes music and bengali funny sound effects to enhance the gaming experience.
- Used Pygbag to run this game in a web browser, making it accessible without additional software.

• BRACUnite - GitHub | Live

- Built a user management platform using Django, HTML, CSS, and JavaScript to strengthen networking among BRAC University students.
- Supported three unique user registration types—Student, Alumni, and Faculty to promote community connections.
- Developed CRUD functionalities for profile management, allowing users to edit and maintain their information easily.
- Added multiple features, including ride-sharing requests, CV PDF generation, email authentication, and a search function to find people with shared interests.
- Designed and integrated an interactive game with Pygame to enhance user engagement on the platform.

Experiences

Student Mentor

OAA, BRAC University

Sep 2022 – May 2024

• Mentored and guided students enrolled from FALL 2022 to SUMMER 2023 as part of the FYAT (First-Year Advising Team) program from FALL 2022 to SPRING 2024.

Senior Contributor

AI & Firmware, BRACU Dichari

Jul 2022 - Jun 2023

- Collected, verified, labeled and processed a dataset of over 5000 images.
- Participated in developing ML models using YOLOv5, achieving 83% accuracy in real-time detection of injured people during natural disasters.

Research and Publications

- Understanding Convolutional Neural Network's Behavior for Alzheimer's Disease on MRI | Link
- Comparison of deep learning models for weather forecasting in different climatic zones | Link
- Quality Assessment of Extracted Information from Newspaper Comment Sections using NLP | Link

Programming and Awards

- Received Merit Scholarship based on BRAC University Academic Results from SUMMER2021 semester to SPRING2023 semester.
- Completed Bachelor's with High Distinction, Got placed on Vice Chancellor's List for four times and Dean's List for once during Bachelor's (Awarded as recognition of achieving a GPA of 3.90-4.00 on a particular semester)
- Secured a position in the top 10% of participants in the BRACU Intra-University Girls' Programming Contest, Summer 2023