Emam Hasan

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→ +8801863703256 ♠ GitHub Profile LinkedIn Profile

EDUCATION

United International University

2020-2024

Bachelor of Science in Computer Science and Engineering

United City, Madani Avenue, Dhaka 1212

- CGPA: 3.61 (Up to 11th trimester)
- Merit-based scholarship: 50% 2 times, 25% 4 time
- Relevant Coursework: Data Structures and Algorithms Analysis Software Engineering Database Management Artificial Intelligence Web Programming Basic Graph Theory Machine Learning Bioinformatics

PROJECTS

• Cinephiles | GitHub Link

April 2023

Web app for movie enthusiasts with exploration, lists, watch parties, and a vibrant community.

- Tools & technologies used: Laravel, PHP, JavaScript, Ajax, MySQL, HTML, CSS
- Led a dynamic team of 5 developers in successfully delivering the entire project, encompassing features like movie exploration, personal lists, watch parties, friendship features, and the innovative meme contest.
- Spearheaded the development of the meme contest feature, allowing users to participate in creative competitions by submitting movie-based memes. Implemented a voting system, contributing to increased user engagement.
- Engineered robust privacy controls for user profiles, enabling customizable settings for who can view personal lists. Innovated solutions to enhance user experience and ensure data security.

• Library Automation System | GitHub Link

November 2022

 $IoT\ library\ system:\ RFID\ lockers,\ cloud\mbox{-}stored\ data,\ web\ display,\ Ultrasonic\ \ensuremath{\mathfrak{C}}\ Sound\ Sensors\ for\ extra\ features.$

- Tools & technologies used: JavaScript, Ajax, Arduino Uno, Node Mcu,Firebase, HTML, CSS
- Engineered a cloud-based library management system leveraging Firebase for seamless data storage.
- Integrated Sound Sensors for enhanced functionality, enabling real-time monitoring of environmental noise.
- Designed and implemented a dynamic website to display live data, providing a user-friendly interface for efficient library management.

• Course Management System | GitHub Link

April 2022

 $A\ website\ for\ students\ to\ select\ courses,\ personalized\ recommendations,\ and\ friend-based\ course\ matching.$

- Tools & technologies used: JavaScript, Ajax, Arduino Uno, Node Mcu, Firebase, HTML, CSS
- Engineered a schedule algorithm optimizing academic planning for students.
- Implemented a collaborative feature for matching courses with friends, fostering shared learning experiences.

• Canteen Management System | GitHub Link

March 2021

This System enables users to browse, select, and purchase food items from three different canteens

- Tools & technologies used: Java, JavaFX
- Developed functionality to allow users to browse, select, and purchase food items from three distinct canteens within the system.
- Created a dynamic menu display showcasing food items and their corresponding prices, providing users with a clear overview of available options.

PROGRAMMING CONTESTS

Achievements

- UIU Coders' Combat 3.0: Secured 4th place out of 200 participants. | Ranklist
- 2023 ICPC Asia Dhaka Preliminary Contest: Secured 250th place out of 2600 teams | Certificate
- 2022 ICPC Asia Dhaka Preliminary Contest: Honorable Mention | Certificate .
- 2021 ICPC Asia Dhaka Preliminary Contest | Certificate
- 2020 ICPC Asia Dhaka Preliminary Contest | Certificate
- Codeforces Round 827 (Div. 4): Secured 2392th place out of 34321 participants
- CodeChef Starters 18 Division 3: Secured 119th place out of 7325 participants

Online Judges | Stopstalk Profile

- Codechef: ehasan302 | Highest Rating:1578 | Solved 112 problems | Participated in 27 contests
- Codeforces: F_O_Y_E_Z | Max Rating: Pupil, 1229 | Solved 1046 problems | Participated in 181 contests
- AtCoder: emam_hasan | Max Rating: 278-9 Kyu | Solved 173+ problems | Participated in 36 contests

ACHIEVEMENTS

• UIU intra University AI Contest Fall 2022 | Certificate

Dec 26,2022

Champion

- Applied SVM to a train.csv file with Medical Paper Abstracts for multiclass classification of medical condition labels, incorporating text preprocessing to optimize predictive accuracy.
- Microprocessors and Micro-controllers Lab Category of CSE project Show,Fall 2022 | Certificate Dec 26,2022 2nd Runner-up
 - Created an IoT library system with RFID lockers, cloud storage, web display, and added features using Ultrasonic and Sound Sensors.
- System Analysis and Design Lab Category of CSE project Show,Fall 2022 Certificate

 Dec 26,2022

 3nd Runner-up
 - Created a movie enthusiast web app with exploration, lists, watch parties, and a lively community.
- Received 2500 USD research grant from Institute of Advanced Research,Oct 2023 | IAR

 $Toward\ Lightweight\ Diabetic\ Retinopathy\ Classification: A\ Knowledge\ Distillation\ Approach\ for\ Resource-Constrained\ Settings$

- A knowledge distillation-based fusion model with a lightweight 102MB student model. Achieved exceptional accuracy with 100% in binary and 99.04% in multi-class classification on the APTOS dataset, and 98.05% for binary and 94.17% for multi-class accuracy on the IDRiD dataset. This approach holds promise for practical DR assessment in resource-constrained environments.

TECHNICAL SKILLS AND INTERESTS

Languages: C, C++, Python, Java, HTML, CSS.

Frameworks/Developer Tools: Laravel, Git and GitHub, Mysql.

RESEARCH

Journals

• Toward Lightweight Diabetic Retinopathy Classification: A Knowledge Distillation Approach for Resource-Constrained Settings | Link | MDPI · Nov 16, 2023

Conferences

- EWasteNet: A Two-Stream Data Efficient Image Transformer Approach for E-Waste Classification IEEE 8th International Conference on Software Engineering and Computer System | Link | Sep 26, 2023
- Data Segmentation with Improved K-Means Clustering Algorithm|First Author| On review | 26th International Conference on Computer and Information Technology (ICCIT)