Emam Hasan

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My Website
GitHub Profile
LinkedIn Profile

Purabi Mor,100 Feet Road, Notun Bazar,
Dhaka, Bangladesh.

Education

- **United International University** *2020-2024*
  Bachelor of Science in Computer Science and Engineering United City, Madani Avenue, Dhaka 1212
  - CGPA: 3.66 (124/137 credits)
  - 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

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

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-stored data, web display, Ultrasonic & 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.

- **Codewar | GitHub Link** *December 2023*
  A web platform enabling users to participate in coding contests, practice problems, and track their progress.
  – Tools & Technologies Used: HTML, CSS, JavaScript, PHP
  – Developed a responsive and intuitive user interface for seamless contest participation and problem-solving.
  – Implemented server-side logic using PHP for user authentication, contest submissions, and problem tracking.
  – Integrated a comprehensive problem repository for users to read, practice, and monitor their solved problems.
  – Designed and implemented a user profile system showcasing a detailed list of problems solved.

- **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.

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,Firebase.

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)