

# Emam Hasan

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🌐 My Website  
🐙 GitHub Profile  
🌐 LinkedIn Profile

## EDUCATION

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- **United International University** 2020-2024  
*Bachelor of Science in Computer Science and Engineering* United City, Madani Avenue, Dhaka 1212
  - CGPA: 3.63 (124/137 credits)
  - Merit-based scholarship: 50% - 3 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 • Psychology • Accounting

## PROGRAMMING CONTESTS

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### 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

## TECHNICAL SKILLS AND INTERESTS

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**Languages:** C, C++, PHP, javascript, Java, HTML, CSS, SQL (for database queries and SQL server)

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

## PROJECTS

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- **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

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- **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

*3rd 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.

## RESEARCH

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### 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)