

# Syed Eftasum Alam

syed.efta@gmail.com | Portfolio | Google Scholar | LinkedIn | Github

## About Me

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Computer Science graduate and university lecturer with expertise in team management, problem-solving, and exploring emerging fields like Artificial Intelligence and Deep Learning.

I am enthusiastic about embracing technological advancements and contributing to innovative solutions that address practical challenges. I believe in fostering an environment of curiosity, innovation, and collaborative learning, where people are encouraged to think critically and develop solutions to real-world problems.

## Education

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**MSc in Computer Science and Engineering**, Brac University Oct 2025

**BSc in Computer Science and Engineering**, United International University Jan 2020 – Jan 2024

- **CGPA:** 3.90 out of 4.0
- **Major:** Data Science

**Higher Secondary School Certificate (HSC)**, Dhaka City College 2019

- **GPA:** 5.00 out of 5.00
- **Group:** Science

**Secondary School Certificate (SSC)**, Savar Cantonment Public School 2017

- **GPA:** 5.00 out of 5.00
- **Group:** Science

## Experience

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**Lecturer**, Department of CSE, Daffodil International University July 2024 – Present

- Conduct undergraduate Computer Science courses with comprehensive curriculum coverage.
- Provide academic counseling and guidance to students on coursework and career planning.
- Serve as academic advisor to allocated student groups and mentoring programs.
- Engage in research initiatives focusing on AI and deep learning applications.

**Instructor (Contractual Lecturer)**, Department of CSE, United International University Jan 2024 – July 2024

- Conducted comprehensive classes on foundational and advanced computer science topics.
- Provided personalized academic counseling and support to enhance student performance.
- Coordinated documentation processes for Board of Accreditation for Engineering & Technical Education.
- Developed course materials and assessment strategies for improved learning outcomes.

**Instructor (Structured Programming Language Special Class)**, United International University Oct 2023 – Jan 2024

- Conducted intensive remedial classes for Structured Programming Language (CSE 1111) course.
- Developed personalized learning strategies for students with academic challenges.
- Implemented innovative teaching methods to improve programming comprehension.
- Supported students' academic development for enhanced performance in future semesters.

**Undergraduate Teaching Assistant**, Department of CSE, United International University Sept 2022 – Jan 2024

- Assisted faculty in conducting smooth and effective classroom sessions.
- Provided comprehensive guidance to students on coursework and academic challenges.
- Evaluated student performance through quizzes, midterms, and final examinations.

- Facilitated study groups and peer learning sessions for enhanced understanding.

## Publications

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**An IoT-and cloud-based e-waste management system for resource reclamation with a data-driven decision-making process** 2023

**Collaborators :** Abu Bakar Fahad, Mithila Farjana, Dr.Motaharul Islam

**Paper Link:** <https://doi.org/10.3390/iot4030011>

**Publisher :** MDPI

**Journal :** MDPI IoT

*This research presents an integrated system leveraging IoT and cloud computing technologies to optimize the end-to-end process of e-waste and recyclable waste management. The proposed solution enhances efficiency by enabling real-time waste monitoring, smart collection, and automated routing to designated recycling or disposal facilities. A data-driven decision-making framework supports operational planning, route optimization, and resource allocation, ensuring faster, more sustainable, and intelligent waste handling and resource reclamation.*

**Thought Scope: Human Cognitive Thinking Classification from Eye Position using Deep Learning and Digital Image Processing** 2023

**Collaborators :** Abu Bakar Fahad, Mithila Farjana, Mr. Raiyan Rahman

**Paper Link:** 10.1109/ICCIT60459.2023.10441248

**Publisher :** IEEE Xplore

**Conferance :** 2023 26th International Conference on Computer and Information Technology (ICCIT)

*This research proposes an advanced model that integrates deep learning and digital image processing techniques to classify human cognitive states based on eye position analysis. By capturing and analyzing the movement and positioning of the eyeball, the system aims to predict cognitive patterns such as attention, focus, and mental engagement. The model is designed to improve the accuracy of cognitive state recognition, providing a foundation for applications in human-computer interaction, assistive technology, and behavioral analysis.*

**Recyclable Waste Image Classification using Convolutional Neural Networks** 2023

**Collaborators :** Abu Bakar Fahad, Mithila Farjana, Dr.Dewan Md Farid

**Paper Link:** 10.1109/ICCIT60459.2023.10441091

**Publisher :** IEEE Xplore

**Conferance :** 2023 26th International Conference on Computer and Information Technology (ICCIT)

*This research introduces an improved approach for classifying recyclable waste using Convolutional Neural Networks (CNNs) in combination with digital image processing techniques. The model is designed to automatically identify and categorize different types of recyclable materials from images, enhancing the efficiency and accuracy of waste segregation. By leveraging deep learning, the system supports smarter waste management practices and contributes to sustainable environmental solutions through automated classification.*

**Advancing Individual Well-being: Fatigue Detection Enhancement using Deep Learning Models** 2025

**Collaborators :** Mohammad Efaz Khondoker, Afsun Al Mayen, Mr. Raiyan Rahman

**Paper Link:** <https://doi.org/10.1145/3723178.3723237>

**Publisher :** Association for Computing Machinery(ACM)

**Conferance :** ICCA '24: Proceedings of the 3rd International Conference on Computing Advancements

*Led a study on AI-driven ( Deep Learning) fatigue detection to enhance workplace safety and employee well-being. Evaluated advanced deep learning models on a real-world dataset, identifying optimal solutions for scalable fatigue monitoring. Demonstrated the potential of machine learning to improve productivity and reduce health risks in high-demand industries, contributing to safer and more sustainable work environments.*

**Optimized Transformer Architecture for Enhanced Performance and Computational Efficiency in Natural Language Understanding and Generation**

**Collaborators :** Mr. Nahid Hossain, Mr. Tarek Rahman

Status : On Going

## Projects

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### Art Patio

Github Repository

- Art Patio is a digital platform aimed at bridging the gap between artists, art enthusiasts, and gallery owners. This online art gallery provides a space where artists can upload and showcase their creations, allowing them to reach a wider audience and sell their artworks directly. At the same time, customers can easily browse, select, and purchase pieces of art through the platform. Additionally, gallery owners can use Art Patio to promote and announce upcoming exhibitions or events, making it a comprehensive hub for the art community. The project reflects a strong vision of supporting artistic expression in the digital age while leveraging technology to connect creative individuals.
- Tools Used: HTML, CSS, Js, PHP, My SQL

### HireHub

Github Repository

- HireHub is a streamlined job platform connecting employers with qualified candidates quickly and efficiently. It offers intuitive job posting, smart candidate matching, and seamless application tracking to simplify the hiring process for businesses and job seekers alike.
- Tools Used: HTML, CSS, Js, PHP, My SQL

### Pawsitive

Github Repository

- Pawsitive is a JavaFX-based desktop applications to facilitate pet adoption. The platform allows users to sign up, log in, search for pets, submit adoption requests, and manage a list of favorite animals. It also enables users to add new pets for adoption and automatically sends email notifications upon adoption requests. The user interface is built with JavaFX and SceneBuilder, and the application requires a separate pet server (also available in the developer's GitHub profile) to function. While the app includes core features like pet listings and email notifications, it currently lacks a built-in chat system for real-time communication between adopters and pet owners
- Tools Used: JavaFx, Scenebuilder

### Currency-Converter

Github Repository

- Currency Converter is a lightweight command-line application developed in pure C . Designed for Windows systems, it offers real-time currency conversion using free APIs, enabling users to convert between various currencies, view historical exchange rates, and receive notifications on rate changes. The application supports features like viewing the highest rates from history and accessing full exchange rate histories. However, due to limitations of the free API used, historical data is restricted to the past year, and rates for volatile currencies like Bitcoin may not always be up-to-date. The project includes a MainMenu.c file for compilation, and utilizes external libraries such as rlutil and cJSON for enhanced functionality. It's a practical tool for users seeking a straightforward currency conversion utility without the need for a graphical interface
- Tools Used: C programming Language

## Technologies

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**Programming Language:** C++ , C, Java, Python

**Development & Frameworks:** HTML, CSS, SQL, PHP, Flutter, JavaFX

**Scripting Language:** Java Script, Bash

**Technical Writing Tools:** Overleaf, Latex, MKDocs

**Software & Project Management Tools:** Git, Github, Scenebuilder,Figma, Jira

## Achievements

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**Scholarship for Academic Excellence :** United International University

Achieved academic excellence with outstanding GPA performance throughout the academic year. Maintained a CGPA of 3.90 in CSE program.

### **Achieved CCNA Badge of Introduction to Networks : Cisco Networking Academy**

Completed The Introduction to Networks course which was arranged by cisco & got full scholarship on that course. Passed the final exam obtaining 90% marks.

### **Project Show Champion Spring 2023 : United International University**

Completed Compete against 30+ teams and we came out on top with our project in System Analysis and Design course.

### **English Proficiency Test Certification**

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**Band : 7.0**

**Listening : 7.5 | Reading : 6.5 | Speaking : 6.5 | Writing : 6.5**

**[View Certificate](#)**

### **References**

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#### **Dr. Dewan Md. Farid**

Professor & Dean, Southeast University

Email: [dewanfarid@seu.edu.bd](mailto:dewanfarid@seu.edu.bd)

#### **Raiyan Rahman**

Lecturer (On Leave), United International University

Email: [raiyan@cse.uiu.ac.bd](mailto:raiyan@cse.uiu.ac.bd)

#### **Dr. Md. Motaharul Islam**

Professor, United International University

Email: [motaharul@cse.uiu.ac.bd](mailto:motaharul@cse.uiu.ac.bd)