



## MD DULAL HOSSAIN

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## Summary

Graduated from Green University of Bangladesh with a strong research and technical background in AI, Machine Learning, NLP, and Blockchain. Skilled in Python, data analysis (NumPy, Pandas), and Large Language Models. Published research on blockchain-based certificate verification and contributed to projects involving AI and automation. Seeking to contribute as a Research Assistant under the HEAT Sub-Project to advance AI-driven research collaboration.

## Education

### Green University of Bangladesh , Purbachal American City, Kanchon 1460 *Oct 2021 – Sep 2025*

B.Sc. in Computer Science and Engineering

- CGPA 3.60 out of 4 ( Passing Years 2025 )

### Moulana Saifuddin Ahiya Degree College Shahzadpur , Sirajgonj .

*June 2017 – May 2020*

Higher Secondary School Certificate ( HSC )

- GPA 4.17 out of 5 ( Passing Years 2020)

### Jamirta High School Jamirta, Shahzadpur, Sirajgonj.

*January 2012 – March 2017*

Secondary School Certificate ( SSC )

- GPA 4.41 out of 5 ( Passing Years 2017)

## Experience

### Applied Researcher

*October 2024 - October 2025*

Nixtec Systems, Bangladesh & Netherlands (Remote)

Skills: Blockchain, Machine Learning, Deep Learning, Natural Language Processing & Large Language Models.

### Research Assistant to Professor Dr. Ahsan Habib

*August 2024 & Running*

Honored to join as Research Assistant to Prof. Dr. Md. Ahsan Habib. Excited to coordinate research, manage academic tasks, & support impactful projects while learning, growing, & contributing under his inspiring mentorship in my academic journey.

### Internship

*December 2024 - April 2025*

Wizard Software & Technology Bangladesh Ltd., Dhaka, Bangladesh (On-site)

Skills: Automation, Artificial Intelligence, Robotic Process Automation, Data Annotation, System Design, Data Governance.

### Instructor at EduTock (AI, ML, DM & DL)

*June 2025 – October 2025*

Conducting training sessions and workshops on Artificial Intelligence, Machine Learning, Data Mining, and Deep Learning.

Designing content, delivering hands-on projects, and mentoring learners to build real-world Python-based applications.

### Trainee ( Python & Django Framework )

*September 2024 - April 2025*

GUB EDGE Digital Skills Development Program, Dhaka, Bangladesh (On-site)

Skills: Python (Programming Language), Web Development, Software Development, Information Technology Infrastructure

### Spokesperson of GUB Transport (Lead)

*March 2025 - October 2025*

Green University of Bangladesh Transport Committee.

## Skills

PROGRAMMING LANGUAGES	Python   Java   HTML   CSS   PHP   JavaScript   Bash   Assembly language   C++   C
SOFTWARE DEVELOPMENT	Agile Methodology   Scrum Methodology   Waterfall Methodology   Android Studio
FRAMEWORKS & LIBRARIES	React (Web Development)   Matplotlib   Numpy   Pandas ( Data Science & ML)
LANGUAGES	<b>Mother Tongue:</b> Bengali <b>Academic:</b> English <b>Intermediate:</b> Urdu & Hindi

## Publications and Research Works

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1. **Development of Blockchain-based Framework for Certificate Verification & Fraud Detection**
  - Accepted at the **7th IVPR & 12th ICIEV** ( March 2025 ). [Linkedin Post link](#)
  - Presented at the **IEEE CS BDC Summer Symposium 2025** (July 2025)[Linkedin Post link](#).
2. **Hybrid Deep Ensemble Framework for Intelligent Intrusion Detection and Classification in Data Center Environments.** [\[Submit in STI 2025\]](#)
3. **An Intelligent Machine Learning Framework for Disease Prediction and Personalized Medical Recommendation.** [\[Submit in STI 2025\]](#)
4. **Hybrid Deep Learning and Ensemble Methods for Dependable IoT Intrusion Detection.** [\[Submit in STI 2025\]](#)
5. Joint Service Migration and Resource Allocation in Cloud Computing Using Large Language Models (LLMs). [\[Ongoing Researchs\]](#)
6. Enhancing Food Supply Chain Transparency and Efficiency through the Integration of IoT and Blockchain. [\[Ongoing Researchs\]](#)
7. Seamless 6G Connectivity: AI-Based Handover Mechanisms for Hybrid Satellite-Terrestrial Networks. [\[Ongoing Researchs\]](#)
8. A Privacy-Preserving Federated Learning Framework for Smart Healthcare Using Blockchain and zk-SNARKs. [\[Ongoing Researchs\]](#)
9. Development of 5G Surveillance Network for Maritime Border of Bangladesh. [\[Ongoing Researchs\]](#)
10. NID Verification System with Blockchain-Enabled IDS. [\[Ongoing Researchs\]](#)
11. Optimizing Real-Time Distributed Systems with Event-Driven Architectures in Edge Computing Environments. [\[Ongoing Researchs\]](#)
12. Adaptive and dynamic Blockchain Framework for Secure Data Sharing in Zero-Trust Edge Environments. [\[Ongoing Researchs\]](#)

## Projects

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**BanglaHaat Shopping (Full Stack E-Commerce Platform)** *Developed using React.js, Node.js, Express.js, Tailwind CSS, MongoDB, Redux Toolkit, Stripe, Cloudinary, Git, GitHub, VS Code & Vercel*

BanglaHaat is a full-stack e-commerce platform built with React, Node.js, and MongoDB, enabling users to shop, manage products, and make secure online payments through an easy, responsive interface.

**Desktop Voice Assistant ( Familiar Siri, Alexa )** *Developed using Python*

Designed an interactive system with speech recognition and text-to-speech features. Utilizes Tkinter for GUI, performing tasks like providing time, playing music, and accessing weather updates. [Project GitHub link](#)

**Intelligent Review Analyser** *Developed using Python*

The Intelligent Review Analyzer uses SVM and BERT models to classify customer reviews as positive, negative, or neutral, achieving 79% accuracy for automated sentiment analysis. [Project GitHub link](#)

**E-Commerce Website: SDM Dulal PC Shop** *Developed using HTML, CSS, JavaScript, PHP, and MySQL*

Created a robust platform with user registration, product selection, cart management, and an admin panel.

Includes a unique repair service feature based on purchase history. [Project GitHub link](#)

**PET Management System** *Developed using HTML, CSS, JavaScript, PHP, and MySQL*

A web-based system to manage pet information, appointments, and medical records,

developed using PHP, MySQL, and Bootstrap for IDP2 course. [Project GitHub link](#)

**Bridge Construction (Padma) - Engineering Drawing Lab Project** *Using AutoCad*

Padma Bridge project designs a 150-meter bridge section using AutoCAD for safety & connectivity. [Project GitHub link](#)

## Banking System (Familiar Nogod)

*Developed using online technologies*

Automated manual banking processes with functionalities for balance checking, fund transfer, transaction record maintenance. Enhances accessibility & accuracy in customer information retrieval. [Project GitHub link](#)

## Group Chat Application ( Familiar Whatsapp )

*Developed in Java.*

This is a Java-based client-server system that supports real-time messaging, image sharing, and emoji integration, providing intuitive interface using JavaFX for seamless communication between multiple users. [Project GitHub link](#)

## School Management System( Familiar GUMS )

*Using DBMS and Java*

Provides modules for student addition, admin management, fee tracking, result processing, and staff administration. Centralized platform for organized school management. [Project GitHub link](#)

## Application of Book Store( Familiar Retailer apps )

*Developed using Assembly Language*

Book store application with user-friendly interfaces for various genres. Demonstrates efficient inventory management and transaction processing in low-level programming. [Project GitHub link](#)

## Library Management System Application With Interface.

*Using Shell Scripting*

This is a Bash-based command-line tool that allows users to efficiently add, find, edit, remove, and view book records, providing a simple yet functional solution for libraries. [Project GitHub link](#)

## Additional Projects on GitHub

*Using Multiple Language*

Beyond the listed projects, I have developed 30+ additional applications and systems. Visit my GitHub to explore hands-on work in web development, data science, machine learning, blockchain, and more. [GitHub link](#)

## Extra-Curricular Activities

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### Latex & MS Office

*Expert*

Proficient in creating professional reports and documents using LaTeX.

Skilled in MS Office tools for documentation, data handling, and presentations.

### Documentation or Administrative Roles (Remote)

*Nixtec System, (Bangladesh & Netherlands)*

Managed documents, attendance, and reports for academic activities.

Coordinated event schedules and ensured clear communication and proper documentation.

### Home Tutor (English Medium)

*December 2021 - October 2025*

I am a home tutor specializing in English medium education.

Oxford International School Dhaka (Student), Bata Goli, Dhaka 1205

### Keynote Speaker

*Webinar - Cyber Existence of a Graduate's Professional Skills*

Delivered a keynote on enhancing graduates' digital presence via LinkedIn, GitHub, and freelancing at an exclusive GUB webinar. [Post link](#)

### Volunteer

*Cyber Security and Cloud Systems*

Organized Cyber Security seminar, ensuring smooth coordination and engagement.

### Volunteer (Anchor)

*Closing Ceremony GUB EDGE Program*

Hosted the closing ceremony, coordinated sessions, and engaged the audience as Anchor for GUB's

Enhancing Digital Government and Economy (EDGE) Program final event.

### Volunteer (Anchor)

*Unlock your AI potential with Agent X!*

Hosted the closing ceremony, coordinated sessions, and engaged the audience as Anchor for GUB's

Enhancing Digital Government and Economy (EDGE) Program final event.

### Bangladesh Scouts (Member)

*June 2017 – May 2019*

Moulana Saifuddin Ahiya Degree College, Shahzadpur, Sirajgonj

### Event Organizer (Leader)

*January 2018 & January 2019*

Led the event organization at Moulana Saifuddin Ahiya Degree College, coordinating teams, managing logistics, and ensuring the successful execution of college programs and activities.

### Photography

Photography captures moments and emotions, freezing time into evocative images.

## Honors or Awards and Achievements

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### Academic Excellence Awards From GUB 01

Fall 2023

Received the Academic Excellence Award from Green University of Bangladesh (Fall 2023) for outstanding performance with a semester GPA of 3.80, qualifying for the prestigious Dean's Certificate.

### Academic Excellence Awards From GUB 02

Spring 2025

Received the Academic Excellence Award from Green University of Bangladesh (Spring 2025) for exceptional academic performance with a semester GPA of 3.91, earning eligibility for the Vice Chancellor's Certificate.

### Academic Excellence Awards From GUB 03

Summer 2025

Received the Academic Excellence Award from Green University of Bangladesh (Summer 2025) for outstanding academic achievement with a semester GPA of 3.90, qualifying for the esteemed Vice Chancellor's Certificate.

### AI+ Prompt Engineer™: Level 1

AI CERTs™ Learner Portal

Earned AI+ Prompt Engineer™: Level 1 certification from AI CERTs™ Learner Portal, demonstrating foundational skills in prompt engineering for AI model interaction and optimization.

### Prompting with Microsoft Copilot

Microsoft

Gained hands-on experience in Prompting with Microsoft Copilot, learning to generate, refine, and optimize AI-powered outputs for productivity, content creation, and task automation.

### Certification - Automation Anywhere ( Essentials Certification )

April 2025

Completed the Essentials Certification covering the fundamentals of Robotic Process Automation (RPA) using Automation Anywhere.

### Champion

January 2019

Badminton Tournament Rajshahi.

### Runner up

February 2018

Badminton Tournament Shahzadpur Upazila, Sirajgonj

## References

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### Professor Dr. Md. Ahsan Habib

Chairperson & Professor, Department of CSE, GUB  
Director, Center of Continuing Education, GUB  
Immediate Past Chair, IEEE CS BDC  
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Relation with Applicant: Research Supervisor

### Dr. Muhammad Abul Hasan

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Relation with Applicant: Course Instructor