

Md. Nihad Hossain

📍 Saidpur Cantonment, Bangladesh | 📩 bcc.researcher@baust.edu.bd | 📞 01773684304 | 💼 Portfolio | 💬 Md. Nihad Hossain
👤 GoesToTwentyOne

EDUCATION

Bangladesh Army University of Science and Technology | *Dec 2021 – Dec 2025*
BSc in Computer Science and Engineering | *Saidpur Cantonment*

- **Year:** 4th Year
- **CGPA:** 3.33 (up to 8th semester)
- **Research:** Actively engaged in research on Natural Language Processing (NLP), Machine Learning (ML), and Retrieval-Augmented Generation (RAG). Three of my six research papers have been published in international conferences, and I am currently collaborating with my supervisor on three more ML, DL, VQG, and CV based studies.
- Serving as the Research & Publication Head of the BAUST Computer Club and the Public Relations Officer of the BAUST Mathematics Club, supporting research activities and publications.

RELEVANT COURSEWORK

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|-------------------------------|---------------------------|------------------------------------|
| • Object Oriented Programming | • Software Engineering | • Data Science and Analytics |
| • Data Structures | • Web Engineering | • Data Warehousing and Data Mining |
| • Advanced Algorithms | • Artificial Intelligence | • Digital Image Processing |
| • Database Management Systems | • Machine Learning | • Computer Security |

EXPERIENCE

Software Engineer | *Rajshahi, Bangladesh*
Tinkers Technologies Limited | *Jan 2025 – Feb 2025*

- Reduced Denial-of-Service (DoS) response time and migrated the AmerVasha Web App from .NET to Django, significantly enhancing overall security, scalability, and performance.
- Developed "Integrated Note" a quick-sharing platform designed for foreign students. Also implemented a user dashboard to manage access issues, using MySQL with ORM integration.

Software Engineer Intern(Remote) | *Berkeley, United States*
VolumeFi LLC | *June 2022 – Dec 2022*

- Designed responsive websites using HTML, CSS, Bootstrap 5, JavaScript, and jQuery.
- Engineered and templated 10+ dynamic, multi-page websites using Go's templating language, applying inheritance techniques for modular and maintainable architecture.
- Collaborated effectively with the team, fostering strong communication and teamwork skills in a software engineering environment

SKILLS SUMMARY

Programming Languages
Advanced Python, C/C++, STL, Golang

Machine Learning Frameworks
Scikit-Learn, TensorFlow, Keras, PyTorch

Databases
SQL, NoSQL, ORM

Natural Language Processing (NLP)
NLTK, SpaCy, Gensim, TextBlob, FastText, Flair, Transformers, Hugging Face, BERT, GPT, RoBERTa, T5

Backend
Django, Django REST Framework, GIT

Problem Solving
⚡ Codeforces ⚡ Codewars

Data Processing
NumPy, Pandas, Matplotlib, Seaborn, Power BI, Tableau,
Apache Spark, Apache Airflow, PCA, Feature-engine

PROJECTS

Bengali ChatBot | *Bengali ChatBot* ↗

- Developed a Bengali language chatbot using a sequence-to-sequence LSTM-based encoder-decoder architecture. The model processes user queries and generates meaningful responses by learning contextual patterns from training data. Emphasized robust text preprocessing, deep learning architecture design, and efficient inference with greedy decoding.

- Tools Used: Pandas, NumPy, NLTK, BNLP, BengaliCorpus, Tokenizer, Lemmatizer, TF/Keras, LSTM, Embeddings, Adam, Dropout, Crossentropy, Greedy Decoding.

December 2024

[Alpha Compiler](#)

Alpha Compiler

- Designed a simple yet powerful compiler for a custom language supporting variable assignments, arithmetic operations, conditionals, and math functions like factorial, trigonometry, and logarithms. Emphasized clear syntax, expression evaluation, and robust control flow handling.

- Tools Used: Flex (Lex), Bison (Yacc), C

April 2024

[GoalGuru Game](#)

GoalGuru

- Developed an immersive soccer game featuring free kicks and goalkeeping challenges, realistic physics, lifelike animations, and dynamic environments across multiple platforms.

- Tools Used: C#, Unity Engine

April 2024

[AcademiaQuest](#)

AcademiaQuest

- Developed a secure, feature-rich web application for effortless exam creation and participation, offering intuitive quiz management, real-time feedback, detailed analytics, and a dynamic user experience for both administrators and participants

- Tools Used: Python, Django, Django ORM, Class-Based Views (CBVs)

August 2023

DjangoECommerceHub

[DjangoECommerceHub](#)

- Developed a full-featured e-commerce web application with secure SSLCOMMERZ payment integration, advanced user authentication, seamless cart and order management, and optimized product navigation to elevate the online shopping experience.

- Tools Used: Python, Django, Django ORM, Class-Based Views (CBVs)

September 2023

DRF BookStore API

[DRF BookStore API](#)

- Engineered a robust RESTful Bookstore Management System using Django REST Framework, leveraging class-based views to deliver clean, scalable APIs for efficient book inventory and user interaction management.

- Tools Used: Python, Django, Django REST Framework, Django ORM, Class-Based Views (CBV), Postman

October 2023

ADDITIONAL PROJECTS

- [Explore a curated collection of impactful projects](#)

PUBLICATIONS

1. Md Nihad Hossain, et al. "A Deep Learning Approach for Multiclass Domain-Specific Question Classification in Computer Science for Bangla Language." 2025 International Conference on Electrical, Computer and Communication Engineering (ECCE). IEEE, 2025.
DOI: [10.1109/ECCE64574.2025.11013932](https://doi.org/10.1109/ECCE64574.2025.11013932)
2. Md Nihad Hossain, et al. "Mental Health Sign Recognition in Bengali Text: An Optimized Deep Learning Transformer Model for Imbalanced Classification." 2025 International Conference on Quantum Photonics, Artificial Intelligence & Networking (QPAIN). IEEE, 2025.
3. Md Nihad Hossain, et al. "False Fire Detection Rates Reduction Using Backpropagation Neural Network Algorithm Optimized with the Levenberg–Marquardt Method." 2025 International Conference on Electrical Information and Communication Technology (EICT). IEEE, 2025.

AWARDS & HONORS

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|-----------|---|---|
| Jan 2021 | Top 5th ranking in the national Golang coding boot camp | (Secured 5th place out of 5,000 participants nationwide, awarded by the Bangladesh Copyright Office & Ministry of Cultural Affairs.) |
| Jan 2021 | Qualified for ICPC Asia Dhaka Regional Contest | (Successfully qualified for the prestigious ICPC Asian Regional Main Onsite Contest, demonstrating exceptional problem-solving and programming skills.) |
| Sept 2022 | Selected for the Bdapps National Hackathon Regional Contest | (Selected for the BDApps National Hackathon Regional Contest by BDApps and Robi Axiata with a unique app idea, highlighting creativity and technical innovation.) |
| Jan 2025 | Successfully qualified, demonstrating exceptional problem-solving and programming skills, with an overall rank of 26th UIU CSE FEST 2025. | |
| Aug 2025 | Top Publications at the Project Showcasing and Publication Summit 2025 | (Secured two top publication awards.) |

REFERENCES

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