# Md Sifatullah Sheikh

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🔗 MyPortfolio    in mdsifatullahsheikh    ⌂ SifatSwapnil2022

## Technical Summary

- Research experience in applying NLP and machine learning techniques to real-world problems in healthcare and language understanding.
- Hands-on experience in Named Entity Recognition (NER) using spaCy, BERT, and custom-annotated biomedical text datasets.
- Developed and fine-tuned transformer-based models for domain-specific entity extraction involving medicinal plants and related terminologies.
- Contributing member of an AI research lab focused on applied machine learning and NLP tasks for low-resource languages and specialized domains.
- Teaching Assistant for Artificial Intelligence and Object-Oriented Programming; guided lab sessions, evaluated assignments, and mentored 100+ students.
- Proficient in deep learning frameworks such as PyTorch, TensorFlow, and tools like scikit-learn, pandas, and NumPy.
- Experienced in Python-based API development (Flask), UI prototyping (Figma), and deployment of lightweight ML services.
- Familiar with Git-based collaborative development, RESTful APIs, version control, and working in Linux-based environments.

## Skills

- **Programming Languages:** Python, C++, Java, JavaScript, SQL
- **AI/ML Languages:** TensorFlow, PyTorch, scikit-learn, Keras
- **Data Science & Tools:** Pandas, NumPy, Matplotlib, Seaborn, Jupyter, Excel
- **Web & UI Development:** HTML, CSS, Bootstrap, React, Figma
- **Software & Tools:** Git, GitHub, VS Code, LaTeX
- **Core Skills:** Machine Learning, NLP, Deep Learning, Predictive Modeling, Data Analytics, UI/UX Design

## Experience

**Undergraduate Teaching Assistant**    *Dhaka, Bangladesh*
*East West University*    *May 2025 – Ongoing*

- Assisted in delivering lectures, lab sessions, and academic guidance for the following courses:
    - Object-Oriented Programming (OOP)
    - Computer-Aided Engineering Drawing
    - Artificial Intelligence (AI) Lab and Research Assistance
- Provided individual and group tutoring to clarify complex topics and improve academic outcomes
- Supported faculty in preparing instructional material and facilitating practical learning environments
- Contributed to departmental research activities and AI lab resource management

## Education

**East West University**    *Jan 2022 – Jan 2026*
*Bachelor of Science in Computer Science and Engineering*

- **GPA:** 3.65/4.00 (Expected: 3.70)

# Projects

## Course Projects

**Campus Event Management System** *GitHub Repo* ↗
- **Course:** CSE 302 – Database Systems
- Built a web app to manage campus events with role-based functionality (Admin, Student, Organizer).
- **Technologies:** PHP, MySQL, HTML, CSS, JavaScript

**Online Food Delivery System (FoodieBite)** *GitHub Repo* ↗
- **Course:** CSE 347 – Computer Information and System Analysis
- Developed a user-friendly food ordering system with real-time tracking and backend optimization.
- **Technologies:** React Native, Node.js, Express.js, MongoDB

**Bangladesh Railway Management System (BDRMS)** *GitHub Repo* ↗
- Designed a full-featured desktop app for train scheduling, ticketing, and live info.
- **Key Feature:** Intelligent timetable management to reduce delays.
- **Technologies:** Java, JavaFX, MySQL, Oracle

## Capstone Project

**Named Entity Recognition (NER) for Medicinal Plants** *Ongoing*
- **Goal:** Building a spaCy and Transformer-based NER system to automatically extract medicinal plant names, anatomical parts (e.g., leaf, root), and therapeutic uses from ethnobotanical texts.
- Collecting and annotating a high-quality multimodal dataset of 10,000-15,000 images of medicinal plants and textual records from diverse regions of Bangladesh, including Mymensingh, Sylhet, Chittagong, and BAU (Bangladesh Agricultural University).
- Developing a full NLP pipeline for knowledge extraction using Python, custom entity tagging (BIO scheme), and tools like Prodigy or Label Studio, with future deployment via an API or dashboard.
- **Technologies:** Python, spaCy, NLP, Custom Annotated Dataset, Regular Expressions.

# Certifications & Achievements

- **Medha Lalon & Dean's List Scholarship** – Awarded for outstanding academic performance.
- **3rd Place – EWU National Robo-Fest 2024 (IT Olympiad)** – Recognized for excellence in tech innovation and problem solving.