

# UTSHAB KUMAR GHOSH

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- 🗳 Dhaka, Bangladesh

#### OBJECTIVES

I have been working with Python, Machine Learning, and Data Science for 4+ years. I also have an experience of 1+ year in Full Stack Development. My motto is to collaborate in the field ML and DS. With the analytical skill of problem solving, research passion for ML/DL, I want to gather experience and knowledge from a based environment, contributing to the humankind.

#### WORK EXPERIENCE

P Dec 2022-

## Jr. Software Engineer

Present

Nascenia Ltd. - Dhaka, Bangladesh

**Department: Machine Learning & Full Stack Dev** 

- A2I Chatbot for Govt. sites: In developing multilingual conversational chatbots, including Bengali, for government websites in collaboration with A2I, I spearhead pioneering research in Bangla Large Language Models (LLM) along with RASA. The technical pursuits involve advanced data scraping, preprocessing, fine-tuning, and quantization of LLMs like Llama-2, mBart, and GPT-3.5. Leveraging LangChain, the team heightens chatbot responsiveness. Our work on prominent platforms like Muktopaath and MyGov underscores our dedication to pushing the boundaries of Bangla LLM research, contributing to the evolution of public service delivery in Bangladesh. It includes Full Stack jobs like development of Flask API and custom Admin Panel for the client to ingest data, control and customize the chatbots.
- Project in Laravel Framework: Worked as Full Stack developer.
- Building Components with Javascript, React, PHP.

#### Feb 2023-

#### **Mentor**

Present

Code Studio Academy – Dhaka, Bangladesh

**Department:** Python, Machine Learning & Data Science

• Currently leading a Machine Learning Bootcamp with over 120 enrolled students. The curriculum covers foundational concepts in Python, Machine Learning, Deep Learning, SQL, and includes practical, hands-on projects designed to reinforce learning outcomes.

## Oct 2020-

# **Al Research Assistant**

Sep 2022

MyMedicalHUB Int. - Florida, USA (Remote)

**Department:** Machine Learning

- Gait Analysis Project: Focused on the detection of Parkinson's disease utilizing Pattern Recognition, Machine Learning, and Deep Learning models. Responsibilities included the analysis of video data to identify key gait patterns associated with the disease to accurately classify and diagnose Parkinson's disease from the collected data.
- Sports Video and Image Analysis Project: Engaged in a comprehensive Sports Video and Image Analysis Project, where machine learning techniques such as pattern recognition with angle-based posture analysis and transfer learning models were employed. The project focused on extracting valuable insights from sports videos and images to enhance performance analysis and decision-making in athletic contexts.
- Worked with AWS, Apace Server, Django REST API.

#### P Dec 2017-

#### **Smart Book Writer**

Jan 2020

**10 Minute School –** Dhaka, Bangladesh **Department: Mathematics & Physics.** 

## EDUCATION \_

Bachelor of Science in Computer Science & Engineering (2017 – 2022)

**CGPA:** 3.22 (out of 4.00)

Department of Computer Science & Engineering,
Rajshahi University of Engineering & Technology, Bangladesh

• Higher Secondary School Certificate (2014 - 2016)

**GPA:** 5 (out of 5.00)

Saint Joseph Higher Secondary School, Bangladesh

• Secondary School Certificate (2009 - 2014)

**GPA:** 5 (out of 5.00)

Motijheel Ideal School & College, Bangladesh

 Programming Python, C, Data Structures, OOP & Algorithms. • Data Science, Data Analysis & Visualization, ANN, CNN, LLM, Rasa, Machine Learning, Supervised & Unsupervised Learning Algorithms, & Deep Learning Feature Engineering, Feature Selection & Extraction.

• Frameworks, Library TensorFlow, Keras, OpenCV, NumPy, Pandas, Scikit-Learn,

& Tools Tableau, Excel Spreadsheet.

 Mathematics for ML & DL Algebra, Statistics, Possibility, Geometry, Matrix.

 Web Development ReactJS, SaaS, Tailwind, JavaScript, Django, Flask, Laravel.

 Database MySQL, MariaDB, Firebase, MongoDB.

Cloud AWS, Azure, Apache Server.

 Miscellaneous Git, Docker, Linux, Docker, Latex, MS Office, Adobe Illustrator, Premiere Pro.

• Interpersonal Skills Management, Teamwork, Leadership, Multitasking.

#### RESEARCHES AND PROJECTS

Bone Marrow Cell Classification (Ongoing)

Field: Biomedical

Accurate Gait Recognition with Inertial Sensors using a New FCN-BiLSTM Architecture

Authors: Nahian Rifaat<sup>1</sup>, Utshab Kumar Ghosh<sup>1</sup>, Abu Sayeed

Journal: Computers and Electrical Engineering (Q1, Available: https://lnkd.in/q8QZYqMt)

Field: Biometrics

Most Dominant Metabolomic Biomarkers Identification for Lung Cancer

Authors: Utshab Kumar Ghosh<sup>1</sup>, Fuad Al Abir, Nahian Rifaat, S.M. Shovan, Abu Sayeed, Md. Al Mehedi Hasan

Journal: Informatics in Medicine Unlocked (Q2, Available: https://lnkd.in/gh8ZaeHK)

Field: Bioinformatics

• My Machine Learning Projects: Github Repository

ML Web App with Flask & AWS: Github Repository

Django Ecommerce Site (<u>Sessional Project</u>)

Supervisor: Asst. Prof. Barshon Sen, Rajshahi University of Engineering & Technology

• IMDB Clone (ReactJS Project)

**Deployed:** https://moviereview-utshabkg.vercel.app/

## COMPETITIONS\_

• Kaggle TensorFlow - Help Protect the Great Barrier Reef (Video Dataset)

Top 49% (1019th out of 2109)

Kaggle PetFinder.my - Pawpularity Contest (Image Dataset)

Top 13% (443th out of 3545)

DataHack Traffic Forecasting (Time Series Dataset)

<u>Time Series Forecasting (Running)</u>

HackerEarth ML Challenge: Fast, Furious and Insured (Image & Tabular Dataset)

Classification & Regression (86th out of 2796)

HackerEarth ML Challenge: A Fine Windy Day (Tabular Dataset)

Regression (54th out of 2034)

# SPECIALIZATION ACCOMPLISHMENTS \_\_

- Kaggle Expert (x3)
- 300+ Problems solved at Codeforces, Codechef, Leetcode, and other Online Judges.
- Deep Learning Specialization

Institute: deeplearning.ai

# Applied Data Science Specialization

**Institute: IBM** 

Data Scientist Career Track

Institute: Datacamp

Al for Medical Diagnosis

Institute: deeplearning.ai

• Gold Medalist: National High School Programming Contest

# EXTRA CURRCULAR ACTIVITES \_\_\_

• Co Founder (January, 2019 – May, 2023)

Code Studio, A software company that builds Mobile and Web Application.

• Asst. Publication Secretary (March 2018 - December 2019)

**RUET Career Forum** 

• Vice President (Admin) (February, 2021 - October, 2022)

Onuronon, RUET Cultural Club

• Founder, Keyboardist, and Guitarist

Plectrum, a Bangladeshi Band

### PERSONAL DETAILS \_\_\_

Date of Birth December 31, 1998 Male

Gender

Bangladeshi Nationality Hinduism Religion National ID No. 9577605968

# REFEENCE(S) \_\_\_

Name	Dr. Md. Al Mehedi Hasan	Prof. Dr. Md. Al Mamun
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Relation	Research and Projects Supervisor	Teacher of Dept.