



# UTSHAB KUMAR GHOSH

+8801701067875, +8801623642710  
kumarutshab@gmail.com  
www.linkedin.com/in/utshabkg

www.github.com/utshabkg  
utshabkg.github.io  
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 of SWE and ML. With the analytical skill of problem solving, full stack dev, and ML/DL, I want to gather experience and knowledge from a based environment, contributing to the humankind and industry.

## WORK EXPERIENCE

- Dec 2022– Present

**Machine Learning Engineer**  
**Nascenia Ltd.** – Dhaka, Bangladesh  
**Department:** Machine Learning & Full Stack Dev
  - RAG Chatbot for Govt. sites:** I am in the pioneering team of the development of **multilingual conversational chatbots**, including Bengali and English, specifically for government websites. We are developing an end-to-end **RAG (Retrieval Augmented Generation) chatbot system** for document-driven question-answering, utilizing Large Language Models (LLMs) through LangChain. This involves **document chunking, vector embeddings, retrieval-based question-answering techniques**, and **advanced research in LLMs** like **Llama-3**, and **GPT-3.5**, coupled with technical pursuits such as **data scraping, preprocessing, pre-training, and fine-tuning the models**. Our teamwork also extend to developing Full Stack solutions, **including Flask APIs and custom Admin Panels**, to ensure seamless integration and customization for our clients.
  - Project in Laravel Framework:** Worked as Full Stack developer.
  - Building Components with Javascript, React, PHP.
- Feb 2023– Present

**Mentor**  
**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– Sep 2022

**AI Research Assistant**  
**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.
- Dec 2017– Jan 2020

**Smart Book Writer**  
**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

SKILLSET

• <b>Programming</b>	Python, C, Data Structures, OOP & Algorithms.
• <b>Data Science, Machine Learning, &amp; Deep Learning</b>	Data Analysis & Visualization, ANN, CNN, RAG LLM, Llama-3, LangChain, Supervised & Unsupervised Learning Algorithms, Pipelines, Feature Engineering, Selection & Extraction, Fine-tuning, Training.
• <b>Frameworks, Library &amp; Tools</b>	TensorFlow, Keras, OpenCV, NumPy, Pandas, Scikit-Learn, Tableau, Excel Spreadsheet.
• <b>Mathematics for ML &amp; DL</b>	Algebra, Statistics, Possibility, Geometry, Matrix.
• <b>Web Development</b>	ReactJS, SaaS, Tailwind, JavaScript, Django, Flask, Laravel.
• <b>Database</b>	MySQL, MariaDB, Firebase, MongoDB.
• <b>Cloud</b>	AWS, Azure, Apache Server.
• <b>Miscellaneous</b>	Git, Docker, Linux, Docker, Latex, MS Office, Adobe Illustrator, Premiere Pro.
• <b>Interpersonal Skills</b>	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/g8QZYgMt>)  
**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** ([Sessional Project](#))  
**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*)  
[Time Series Forecasting \(Running\)](#)
- **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
- **AI 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 \_\_\_\_\_

<b>Date of Birth</b>	December 31, 1998
<b>Gender</b>	Male
<b>Nationality</b>	Bangladeshi
<b>Religion</b>	Hinduism
<b>National ID No.</b>	9577605968

REFEENCE(S) \_\_\_\_\_

<b>Name</b>	<b>Dr. Md. Al Mehedi Hasan</b>	<b>Abu Sayeed</b>
<b>Organization</b>	Rajshahi University of Engineering & Technology,	Rajshahi University of Engineering & Technology
<b>Designation</b>	Head of Dept. of CSE	Assistant Professor
<b>Mobile</b>	+880-1712 205 360	+880-1751 471 785
<b>E-Mail</b>	mehedi_ru@yahoo.com	abusayeed.cse@gmail.com
<b>Relation</b>	Research and Projects Supervisor	Thesis Supervisor