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UTSHAB KUMAR GHOSH

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 [www.linkedin.com/in/utshabkg](http://www.linkedin.com/in/utshabkg)  Dhaka, Bangladesh



**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.**

**Education**

**Certifications**

* **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

**Interpersonal Skills**

* Management
* Teamwork
* Multitasking
* Leadership

**Languages**

* English
* Bangla

**Interests**

* Music & Instruments
* Taekwondo
* **Jan 2017- Bachelor of Science: Computer Science & Engineering** (CGPA: 3.22)

**Oct 2022** Rajshahi University of Engineering & Technology – Rajshahi, Bangladesh

**Work Experience**

* **Dec 2022- Machine Learning Engineer  
  Present 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- 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- AI 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.

**Technical Skills**

* + **Programming** Python, C, Data Structures & Algorithms.
  + **Web Development** ReactJS, SaaS, Tailwind, JavaScript, Django, Flask, PHP, Laravel.
  + **Data Science,** Data Preprocessing, Analysis & Visualization, ANN, CNN, LLM, RAG,

**Machine Learning,** LangChain, Rasa, Supervised & Unsupervised Learning Algorithms,

**& Deep Learning** Feature Engineering, Feature Selection & Extraction, Fine-Tuning & Training.

* + **Frameworks, Library** TensorFlow, PyTorch, Keras, OpenCV, NumPy, Pandas, Scikit-Learn,

**& Tools** Tableau, Excel Spreadsheet.

* + **Mathematics for ML & DL** Algebra, Statistics, Possibility, Geometry, Matrix.
  + **Database** MySQL, MariaDB, Firebase, MongoDB.
  + **Cloud** AWS, Azure, Apache Server.
  + **Miscellaneous** Git, Docker, Linux, Latex, MS Office, Adobe Illustrator, Premiere Pro.

**Researches**

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

**Journal:** Computers and Electrical Engineering (**Q1**, **Available:** <https://lnkd.in/g8QZYgMt>)

* **Most Dominant Metabolomic Biomarkers Identification for Lung Cancer**

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

**Projects**

* **Bone Marrow Cell Classification** (Ongoing)
* [**My Machine Learning Projects**](https://github.com/utshabkg/ML_Competition-AND-Practice)
* [**ML Web App with Flask & AWS**](https://github.com/utshabkg/end-to-end-mlproject-bootcamp)
* [**Django Ecommerce Site**](https://github.com/utshabkg/Ecommerce_site_Django)
* [**IMDB Clone**](https://moviereview-utshabkg.vercel.app/) (ReactJS Project)

**ML Competitions**

* **Kaggle TensorFlow - Help Protect the Great Barrier Reef** *[Top 49% (1019th out of 2109)]*
* **Datahack Traffic Forecasting** *[Time Series Dataset, Running]*
* **HackerEarth ML Challenge: Fast, Furious and Insured** *[86th out of 2796]*
* **HackerEarth ML Challenge: A Fine Windy Day** *[54th out of 2034]*
* **300+ Problems solved** atCodeforces, Codechef, Leetcode, LightOJ and other Online Judges.