# Soumen Sarker

Dhaka: 1204, Bangladesh



Mail





**GitHub** 



#### CAREER OBJECTIVE

Dedicated to finding solutions to problems, passionate about software engineering, machine learning, and data science. Working in a collaborative setting with experts in my areas of interest will help me advance my professional career.

#### **EXPERIENCE**

- Working with research teams in the domain of computer visions, medical image analysis
- Data Science, Machine Learning, and Deep Learning (NLP, Computer Vision) projects
- Kaggle Competitions
- Problem Solving, OOP

## **EDUCATION**

- □ Islamic University, Kushtia, Bangladesh B.Sc. in ICT CGPA: 3.52 out of 4.0 March 2016 September 2021
- Govt. Azizul Haque College, Bogura:5800 HSC, Science group

# **PUBLICATIONS & PROJECTS**

#### **Publication:**

**Title**: WhyMyFace: A Novel Approach to Recognize Facial Expressions Using CNN and Data Augmentations <u>Conference Paper</u>

### **Deep learning projects:**

- i. Final Year Project:
  - A Sentiment Classification model by comparing naive Bayes, DNN, RNN, and LSTM classification models.
  - Automatic Text Summarization with Transformer Architecture.

#### **Key aspects:**

TF-IDF, stem/lemmatize, tokenization, vector embedding, n-gram, NMT, seq2seq, attention, gradient descent, rmsProp, transformer architecture!

Link

ii. Built and Deployed an NLP application that reveals named entities, classifies sentiment, and does text summarization using spacy, textblob, genism, streamlit and heroku.

Link

#### iii. Image Classification/Browser based model to classify Rock/Paper/Scissors

Browser-based model, node.js, training with and without transfer learning, evaluating, alerting on browser!

- Model created with Tensorflow Keras in python
- Convert the Keras model into JSON format using the Tensorflow.js converter Link
- iv. Built and deployed a CV application that detects faces, smiles, and eyes, do enhance as well as filters like cartoonish. App link

## **Machine Learning & Data Science Projects:**

#### i.House Price Prediction

- Feature Engineering and Selection
- Model building
- Creating an ML pipeline
- In-house software using Scikit-learn API( OOP, Inheritance, Transformers, Pipeline) and recreating an optimized pipeline(python environment)
- Packaging the model for production(requirements files, tox, pyproject.toml)
- Serving and deploying the model via REST API(Fast API, HTML, UVicorn web server, Heroku)

  APP Link

#### **TECHNICAL SKILLS**

- C
- C++
- Python
- Javascript
- OOP
- Data

- Structures
- Machine
- Learning
- Deep
  - Learning
- Data Science
- Tensorflow
- Pytorch
- Computer
  - Vision
- NLP
- Git

- Scikit-Learn
- SQL
- Scipy
- Numpy
- Pandas

## **COURSES & CERTIFICATES**

- DeepLearning.Al TensorFlow
   Developer -<u>Coursera</u>
- Deep Learning Specialization Coursera
- Machine Learning Coursera
- Algorithmic Toolbox by UCSanDiegO-Coursera

# LANGUAGE PROFICIENCIES

Bangla: native language

English: fluent (speaking, reading, writing)

#### **References:**