Sounak Mukherjee

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EDUCATION

Kalinga Institute of Industrial Technology — Bhubaneswar
B.Tech Computer Science and Engineering, **CGPA: 9.1** — 2019–Current

PROJECTS

Targeted-sentiment-analysis — December 2021

Implemented Transformation Net for targeted sentiment analysis

- Built a custom model to get the polarity of the target in the sentence.
- Then created an API for the backend using FastAPI is containerized using docker and deployed on a kubernetes cluster.

Machine-Translation — November 2021

Trained a Transformer from scratch and used for machine translation

- Encoder-Decoder architecture to produce an input sequence representation with applied positional embedding to increase token position awareness in sentence. Decoder connects it all together and generates required translation.
- It translates English sentences to German have plans to expand its support for Indian language. Created the front-end in streamlit and deployed the application in EC2 instance.

Food101-Classifier — June 2021

Trained a pre-trained model to classify 101 different food Class based on Food-101 dataset

- Used pre-trained EfficientNetB0 model to trained the model and deploy it on streamlit
- Achieved an accuracy of 79% which beats the accuracy of DeepFood paper's accuracy of 77%

Stroke-Prediction — February 2021

Trained the model on RandomForestClassifier

- Used SMOTE for imbalance dataset
- Achieved F1-score of 94%

TECHNICAL SKILLS

- **Languages:** Python, C/C++, Dart, HTML/CSS
- **Libraries:** Scikit-Learn, Matplotlib, Pandas, Seaborn, Spacy
- **Framework:** TensorFlow, Keras, PyTorch, Flutter
- **Others:** Linux, Git, AWS, Streamlit, Docker, Kubernetes, FastAPI

COURSEWORK

- **Academics:** NLP, Machine Learning, DMDW, Data Structures, Operating Systems, Database Management Systems, Web Technology

- **Others:** Coursera Deep Learning Specialization by Andrew Ng., GANs Specialization by DeepLearning.ai

COMMUNITY WORK

- Machine learning team member at Google Developers Student Club KIIT — November 2021 - present
  Participated in PetFinder.my - Pawpularity Kaggle Contest and were among the top 56%.
- AI(mini) Blitz — December 2021
  Participated in AI(mini) Blitz. There was 3 challenges out of which I have participated in 2, Food Recognition and ORIENT Rubik cube challenge where I have secured 1st and 2nd position, respectively and was 4th in the overall leader board.