Pranay Shah

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Github - Pranay1021

EDUCATION

Bachelor of Technology (CSE), KIIT DU, Bhubaneswar, Odisha	9.5/10 CGPA 2021-2025
12th Science, St. Xavier's College, Kathmandu, Nepal	3.75/4 CGPA, 2018-2020
10th NEB, Green Lawns Academy, Kathmandu, Nepal	3.95/4 CGPA

Research Intern

Multilingual Service Classification with Fine-Tuned Pre-trained Models - 🔗   Dr. Sujata Swain, KIIT

- Engineered comprehensive data preprocessing pipeline for multilingual API service datasets, implementing strategic cleaning and categorizing of data.
- Developed and fine-tuned 5 state-of-the-art transformer models (XLM-RoBERTa, BERT, GPT-2, DistilBERT, MiniLM) through adjustment of various hyperparameters to optimize classification performance.
- Conducted rigorous comparative analysis using precision, recall, F1-score and accuracy metrics, identifying XLM-RoBERTa as superior with 82% accuracy for multilingual service categorization.

Web Service Classification Using Hybrid NLP and Optimization Techniques - 🔗   Dr. Sujata Swain, KIIT

- Implemented and evaluated five combinational models using heuristic optimization techniques (Artificial Bee Colony, Grasshopper and others) coupled with traditional machine learning classifiers.
- Developed an innovative service classification framework that integrates BERT and Word2Vec embeddings with optimization algorithms, achieving 47.69% accuracy in categorizing web services across 50 distinct classes.

Publications

Utilization of Blockchain Technology in Artificial Intelligence–Based Healthcare Security Shah, P., Mishra, S., Adrian, A.M. (2024). Utilization of Blockchain Technology in Artificial Intelligence–BasedHealthcare Security. In: Idrees, S.M., Nowostawski, M. (eds) Blockchain Transformations. Signals CommunicationTechnology. Springer, Cham.

10.1007/978-3-031-49593-9_2 - 🔗

Personal Projects

Waste-Classification Using Deep Learning (Tensorflow) - 🔗

- Developed a deep learning-based CNN model for classifying waste-images into four different categories (recyclable, non-recyclable,organic and hazardous)
- Leveraged TensorFlow library for building and training the CNN model and Streamlit for user interface

Certifications

IBM Machine Learning Certificate - Supervised Machine Learning Regression, Supervised Machine Learning Classification , Unsupervised Machine Learning - Coursera 🔗

Technologies & skills

Languages: C++, C, Java, C#, SQL, Python, Dart
Technologies and Skills: Matlab, Scikit learn, Tensorflow, Pandas,jupyter, Git,DSA,OOPs,Flutter, Android Studio

EXTRA CURRICULAR ACTIVITIES & ACHIEVEMENTS

SII Scholar provided by the government of India to pursue Btech CSE in KIIT.

Active member of International Student Society KIIT