Akash Gupta

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https://www.linkedin.com/in/gakash2001/

https://github.com/gakash2k01

Skills

Machine Learning
Pytorch, Tensorflow, Computer vision, NLP

Programming
C/C++, Python, Matlab, GNU Octave

Education

present
Dhanbad, Jharkhand
Bachelor of Technology in Electronics and Communication Engineering,
Indian Institute of Technology
CGPA - 6.69

Bangalore, Karnataka
Base PU College
12th - 85%

Basti, Uttar Pradesh
St. Basil's School
10th - 94%

Professional Experience

Research Intern, *UiT - The Arctic University of Norway*
Developing novel training pipelines for CNN and vision transformers for handling very large images under resource budget constraints.

Deep Learning Intern, *TransmuteAI Lab*
Literature review of various code modularization techniques, code modularization and combining the power of various ways of Binarization, Pruning, Distillation and Quantization for an upcoming open-source tool.

CyberLabs, IIT-ISM — Member
The official tech club of IIT-ISM, where we read research papers, complete the standard machine learning courses, participate in kaggle contests and various hackathons together.

Publications

UltraMNIST Classification: A Benchmark to Train CNNs for Very Large Images
D. Gupta, U. Bamba, A. Thakur, A. Gupta, S. Sharan, E. Demir, D.K. Prasad

Paper Link: https://arxiv.org/abs/2206.12681

[NeurIPSs 2022 Datasets and Benchmarks (Submitted)]

Languages

English Hindi

Projects

UltraMNIST Classification Benchmark
- Played a key role in the creation of the UltraMNIST dataset.
- Developed multiple baselines for the standard and budget-aware benchmark.
- Co-authored a research paper.
- Code: https://github.com/transmuteAI/ultramnist

Systematic Benchmarking of Quantization methods in Deep Learning
- Co-developing quantization models for an open-source project on bench-marking of model compression methods.
- Scientific literature review, implementation of quantization methods and running experiments for an upcoming scientific paper.

Bosch's Age and Gender Prediction
- Made Age and Gender prediction model using pytorch for InterIIT 2022.
- Code:https://github.com/gakash2k01/Bosch_AG-Prediction

Bot for Flipkart Grid 3.0
- Created and automated a set of four bots for the challenge with my knowledge of openCV and algorithm.
- Code: https://github.com/gakash2k01/Flipkart-GRID_3.0

Sentence encoder decoder
- Using huggingface's T5-small model, implemented a sentence encoder decoder model which can be used to predict part of speech from a sentence, summerize a small texts, predict titles or perform any text classification task with small changes. It can also be used to train a model that can translate sentences to different language merely by replacing the dataset.
- Code: https://github.com/gakash2k01/saarthi-nlp-task

Kaggle

- Active participation in Kaggle Days, Vision-Verse, Image-Classification - 2, UltraMNIST Classification challenge, Happy Whale: Whale and Dolphin Identification, 30 Days of ML, PetFinder.my: PetPawpularity Contest etc.