Deep Learning Cohort 1.0

Capstone Project(Group Project)

6th February, 2024

Submission Date: 2nd March, 2024
Mentor: Mustapha Abdullahi
Lead Mentor (ArewaDS): Dr Shamsuddeen Hassan Muhammad

Contact Mentor:
Telegram: ArewaDS Deep Learning
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Hello there! I hear you are a super hero within the Deep Learning (DL) world and you have mastered the fundamentals of DL. I will need your help with solving a classification task using pre-trained networka. Please, see details in §1

1   General Information

- 4 groups, each of 4-5 fellows[1]. See your groups §4

- Use any image dataset, preferable local nigeria (or African) data. You can find datasets in Kaggle Datasets, Zindi Africa, etc.

- Use at least two pre-trained models for solving your problems e.g. ResNet, AlexNet, etc. You can find pre-trained models in PyTorch Vision Models, Hugging Face Models

- Deploy one or any of the final trained models, on local or cloud. You can deploy using Gradio, Hugging Face, etc

Feel free to go beyond this specifications to do additional computer vision tasks, if you have enough time.

2   Deliverables

- Clean and modular **ML code on GitHub**. This can consist of notebooks, *.py* files, etc. Strongly recommended to add *README.md* file describing your work and how to run any part of your work. You can create a new GitHub repo for your group, adding group members to make changes.

- 2-page double column **research paper**. Showing training logs - WandB, tensorboard, etc. **Maximum of 2-pages** excluding references. Please, click **Similar Sample** and **Writing Templates** for Word or LATEX. Feel free to organise your writing in your preferred way. Advisably, spend little time/writing on introduction, related works, etc. Focus more on writing what you have done and the results.

- 3-5 minutes **short video** outlining your work. This should briefly introduce your work and most important show a demo the deployed model. Feel free to follow any pattern for the video.

3   Support

If you have technical or non-technical issues. Kindly feel free to contact your colleagues and I anytime via Telegram or Email. Happy to help review or debug your code.

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[1]Working in groups can be very tricky. Please, try to collaborate as much as possible. The deadline is about one month. If you collaborate well, you will have advantage of 4 months and if not, this project will feel like you had only one week. Kindly contact me if you have any team issues.

4 Groupings

Group 1

Abubakar Salisu Bashir
Fatima Muhammad Adam
Abdulrahman Yusuf
Abdullahi Ahmad
Saminu Muhammad Aliyu

Group 2

Lukman Aliyu Jibril
Bilqisu Ismail
Mohammed
Umar Sani Muhammad

Group 3

Aminu Hamza Nababa
Bala Mairiga Abduljalil
Alamin Musa Magaga
Lurwanu Abdullahi

Group 4

Faridah Yusuf
Sani Aji
Munzali Alhassan
Musa Adamu

5 Subsmission

Submissions link will be communicated with you soon. Thanks :)