**Assignment 4.2 AAI 521 – Team Project Status Update Form**

Fill out this form and submit it by the end of Module 4 in Blackboard.

1. Team Number: **Project Team 4**
2. Team Leader/Representative: **Ryan Laxamana**
3. Full Names of Team Members:

1. **Ryan Laxamana**

2. **Lauren Taylor**

3. **Prachi Khanna**

1. Title of Your Project:

**HarvestGuard: Afrocentric Leaf Disease Classification for Agricultural Sustainability**

1. Short Description of Your Project and Objectives:

**This project focuses on Leaf Disease Classification using an Afrocentric dataset. The dataset is specifically curated to represent diverse agricultural scenarios across various African regions. It comprises annotated photos of leaves from a variety of crops, showcasing both healthy specimens and those affected by diseases. The goal is to develop a classification system leveraging machine learning techniques to accurately identify and categorize crop diseases based on the subtle symptoms observed in the annotated images. By using an Afrocentric dataset, the project aims to enhance the effectiveness of disease classification models tailored to the unique agricultural landscape of Africa (Responsible AI Lab, 2023).**

**Responsible AI Lab (2023). Crop Disease (Ghana) from hhttps://www.kaggle.com/datasets/responsibleailab/crop-disease-ghana**

1. Name of Your Selected Dataset: **Afrocentric (African) Crop Dataset**
2. Description of Your Selected Dataset (data source, number of images, dimension of images, size of dataset, etc.):

<https://www.kaggle.com/datasets/responsibleailab/crop-disease-ghana>

**Number of images – 8176 (Corn-2278, Pepper - 3488, Tomato- 2410)**

**Dimension of Images –**

**<size>**

**<width>4080</width>**

**<height>1836</height>**

**<depth>3</depth>**

**</size>**

1. Description and Requirements:
2. What is the task, and why does it matter?

**The task is to categorize disease in crops. It matters because disease can be a significant barrier to producing enough food. Being able to identify and monitor crop diseases can help increase yield and alleviate hunger.**

1. How were the data measures, how raw is this dataset? For example, what type of camera(s) were used, have the photos been cropped or edited before you started using them?
2. Has this dataset been used a lot in the past for computer vision, either papers, applications, competitions and similar uses?

**The dataset was created and published by a research group at  Kwame Nkrumah University of Science and Technology in Ghana. However, they have yet to conduct research using the data.**

1. What is the feature extraction plan?
2. Is there any bad data, cropped image…? (This is not a hard stop, there are several ways we can handle this problem)

**Data is clean**

1. Are you using any cloud services to host and transfer data? If yes, provide the link here:

**N/A**

1. How many times have your members met in the last week?

**1 time**

1. List the specific contributions that each team member is providing for the Final Team Project. **NOTE:** ALL students on the team should contribute equally to the Final Team Project.

|  |  |  |
| --- | --- | --- |
| Team Member 1 (Name) | Team Member 2 (Name) | Team Member 3 (if applicable) (Name) |
| List of contributions | List of contributions | List of contributions |

1. Comments/ Roadblocks: