AAI-510 – Team Project Status Update Form

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

Team Number: 7

Team Leader/Representative: Steve Farmer

Full Names of Team Members:

1. Atul Aneja
2. Omar Sagoo
3. Ramesh Dhanasekaran
4. Steve Farmer

Title of Your Project: "Doctor AI will see you now – using ML to diagnose pneumonia"

Short Description of Your Project and Objectives:

For this project, our team wanted to take on an ambitious effort with real-life applications.

We selected a dataset from Kaggle featuring 5,863 chest x-ray images from patients being seen for pneumonia, in order to see if we could train a model to accurately diagnose pneumonia based on a single x-ray.

Adding to the challenge is the fact that this is a computer vision problem, which none of us have any prior experience with.

Since this dataset is on Kaggle, other teams have taken a shot at it already. Our approach will be to learn from them how to tackle a computer vision problem like this, and then see if we can improve on their approach and results.

To do this, we'll leverage the work done by Amy Jang in her notebook *TensorFlow Pneumonia Classification on X-rays (*https://www.kaggle.com/code/amyjang/tensorflow-pneumonia-classification-on-x-rays*).*

Our objective is to learn how Amy tackled the data, and see if we can improve on her challenges with overfitting and her outcome of high accuracy but too many false positives.

Name of Your Selected Dataset:

Chest X-Ray Images (Pneumonia)
https://www.kaggle.com/datasets/paultimothymooney/chest-xray-pneumonia

Description of Your Selected Dataset (data source, number of variables, size of dataset, etc.):

Our dataset is sourced from Kaggle. It features an imbalanced data set of 5,863 x-ray images capturing patients with pneumonia, and patients without.

We will also be leveraging the work previously done by Amy Jang on this dataset, and published on Kaggle here:

https://www.kaggle.com/code/amyjang/tensorflow-pneumonia-classification-on-x-rays

Please provide GitHub the link here:

https://github.com/Jungleislander/AAI-510-01-Team-7

How many times have your members met in the last two weeks?

We've met twice so far.

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

All Team Members
We have not yet identified specific individual contributions, as we are currently ramping up on the dataset, as well as on how to tackle a computer vision challenge like this. Once we have an understanding of how this dataset has been tackled in the past (by Amy Jang), each of us will propose an approach to improve on her strategy, and our efforts will be combined in hopes of achieving more usable results than Amy was able to achieve.

Comments/ Roadblocks: We do not have any roadblocks at this time.