CSC420 – Progress Report[1]

Make a copy of this progress report, then complete it. Submission instructions and a grading rubric are included below.

Your name: <replace me with your name>

Date: <replace me with the current date>

Progress Report

- **Accomplishments**: What did you accomplish since the last class meeting, the last progress report, or since you started the project? If you didn't complete anything since the last report, enter **N/A**.

  In my last report, I mentioned that I was able to create a good dataset of images and even though my neural network was not working correctly – I managed to produce some predictions of the damaged buildings. This time, I finally managed to produce more accurate results and I imagine this accuracy is going to be my limit, given the time and resource restrictions. Not only did I manage to train my neural network well, but I also developed a feature of opening the camera on the phone, so that it can scan and/or upload images of the buildings to be analyzed how much these buildings are damaged. This feature was one of the most important features on my app – to open the camera, scan/upload images of the buildings and predict its percentage of it being damaged.

- **Future Goal**: What do you plan to accomplish before our report? These plans should be related to roadblocks or discussion points. It you plan to change direction, explain why.

  However, I was not able to implement a couple of other features that I mentioned in my initial report such as feedback buttons, data storage availability, results of the damaged buildings displaying on Google Maps and many more. However, all of them were not priority 1 features and were just additional cool things to have.

- **Challenges**: What are your current roadblocks?

  My biggest challenge is training my neural network because now it just seems like a whole black box. I have tried manipulating the layers in my neural network, adding drop out layers and many other things trying to fix over and underfitting issues – however, nothing has worked perfectly. But I also understand that it might be very challenging to train a model because damaged buildings' images do not have very clear patterns in it for the model to learn well. I also tried to clean my data even more by going through each image in 3000 images and trying to leave only those with specific patterns in them.

- **Desired Discussion Points**: Do you have any desired discussion points that are not related to roadblocks?

  My discussion point would be to try to see what would be those exact definitions of "damaged" and "non-damaged" buildings. Do small cracks in the wall automatically make it "damaged'? How is my model going to learn all these small details? Is it okay that for now I just split it into two classes of damaged and non=damaged?

Submission to your Project github repository

1. Download the completed report as a PDF

[1] This progress report is based on a Weekly Progress Report created by Dr. Nakazawa for CSC493

2. Give your PDF a unique name, for example: ***2023-02-21-progress-report.pdf***, obviously change the date as appropriate.
3. Add the PDF to your Project github repository, add it, commit it, and then push it by the due date listed in Moodle.

Rubric:

The following rubric will be used, but they might change as needed.

Accomplishments (3 points)

1 point for a general description of progress, 2 points for specifics on progress, 3 points for specifics AND referring to previous targets and explaining how currently accomplishments build on previous ones.

Challenges (3 points)

1 point for mentioning there are roadblocks, 2 points for specifics, 3 points for specifics AND what was done already to try to overcome them.

Desired discussion points (2 points)

1 point for at least one relevant discussion point as a general question, 2 points for relevant discussion points with specifics

Future Goals (2 points)

1 point for concrete future targets (i.e. "working more on the project" is a zero, but "working on getting component X to interface with component Y" suffices), 2 points for tying in the targets with what was hopefully discussed in the meeting.