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: <Sabira>

Date: <02/23/23>

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 buildings' images for both damaged and non-damaged buildings. Also, I mentioned that I was planning to build a convolutional neural network and feed my images into it. After this, I managed to actually build my neural network structure. However, my CNN did not work correctly – it would predict "damaged" even if the building is not damaged and would keep giving 100% accuracy in predictions which is not true. Later, I realized I had problems in my dataset that included random images in it and had to run couple of scripts to remove it. Then, I managed to generate my predictions with 94% accuracy, however, it was still not doing great job at identifying damaged and non-damaged buildings.

- **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.

  Next, I plan to dive deeper in my neural network structure and try to analyze potential errors that are not letting me get accurate predictions. I plan to alter the sizes of my datasets for both classes, change the % of images for testing and training and see if it is going to help me increase accuracy in predictions.

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

  The current challenge I am facing is trying to get my neural network to give as accurate predictions as it can. In order to solve this problem, I also cleaned up my dataset, looked over tutorials to analyze if I was overfitting my CNN.

- **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?

Submission to your Project github repository

1. Download the completed report as a PDF
2. Give your PDF a unique name, for example: ***2023-02-21-progress-report.pdf***, obviously change the date as appropriate.

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

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.