The current state of your project: what works, and what doesn't. This needs to match the code and data committed in your team's repo on GitHub.

The machine learning model is fully integrated in the website. The website can be run by importing the necessary libraries and opening the app.py file.

The project is finished.

Any feature changes to the proposal. As we discussed in class, no reason is necessary for M1, but any feature changes in M2 et seq will need a technical justification. Obviously, feature changes need to keep in spirit with the project, so you can't for example remove all the hard parts :)

Originally, the data to be displayed for the user was a map that showed a square centered around the longitude and latitude coordinates the user entered. There would be 9 highlighted locations surrounding the square to show if there would be a wildfire or not. These locations would be represented with a red dot indicating a wildfire and a grey dot indicating no fire. The only change we added was the ability to hover over the red dots to see the predicted approximate size of the wildfire in hectares.

The current challenges / bottlenecks you are facing, both technical and otherwise, and what you are thinking of doing about it.

The main challenge we faced was our climate data. We collected data for a single day, which prevented us from using an RNN model in our ensemble, as we had only one set of climate data to work with per fire entry. To overcome this challenge, we would collect data at set intervals preceding the start date of the fire. However, we calculated that would require us to spend 3-4 times more money on the API on top of what we have already spent. We cannot use existing climate data gathered from other fires since there are arbitrary lengths of time between each fire, and fires can have a significant distance between them.

This project challenged our paradigm of machine learning being a linear process, and there are lessons we learnt that could be used to improve our model. Our inability to overcome the financial bottleneck prevented us from finishing the RNN model.

For each team member, what tasks were done and which tasks are underway.

Student 1 (Michele Mai): Added a note to the front web page that explains how to interpret the data to be outputted on the next page. Student 1 also changed the layout of the web page to make it more accessible to view on different sized monitors. Finally, Student 1 wrote sections 2, 4.4, 4.6 of the final report and proofread.

Student 2 (James Ardian): Student 1 completed all of the website backend and integrated the Machine Learning model into the website. Wrote sections 4.2 - 4.3, 4.6 of the final report.

Student 3 (Anna Wang): Created the diagram of the system, wrote code for obtaining future predictions from WeatherCrossing. Wrote sections 1, 3, 4.1-4.2, 4.5, 5 of the final report and proofread.

Student 4 (Alex Liu): Edited the final video, and uploading to youtube as per the professor's request.