

Project 1 Midterm Report

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Progress:

Currently, we have a fully functioning facial recognition model for 5 tech celebrities: Steve Jobs, Jeff Bezos, Elon Musk, Mark Zuckerberg, and Bill Gates. The data that we are using has over 800 images of each person. Our focus is now turned on improving the model since our accuracy is not strong.



We have a functioning model, but its accuracy is low. This most likely stems from two issues: we scaled up low resolution pictures and have several (5) classification categories instead of two. This may mean that we might need to change/tweak our data.

```
Training complete in 15m 29s
Best val Acc: 0.339168
Saving model trained_model.pt
```

As you can see, as of now, the accuracy is only a little better than guessing.

predicted: mark_zuckerberg



predicted: mark_zuckerberg



predicted: steve_jobs



```
preds: tensor([1, 0, 1, 0], device=0)
predicted: elon_musk
```



Preparation of the Data:

I started searching for face datasets in kaggle to start. I eventually found a large data set of over 800 images of the 5 tech celebrities.

<https://www.kaggle.com/datasets/muhammadhananasghar/5-famous-people-face-recognition>

Then, I spent time making sure that the labels matched the actual photos since there were some inaccuracies. I also spent time splitting up the data into training and validation sets, and I made sure the data was structured in a readable manner to load into the colab notebook.

Going forward, we need to find videos of our tech celebrities for our final test. As of right now, we only have images to develop our model.

Workload Distribution:

I (Javier) have sourced the data and created the initial prototype. I set up the program and developed a transfer learning based model. With the prototype results, I also did this report analysis/update. Most of my time has been spent curating thousands of images used for training and validating our model. Bobby will mostly focus on improving our model going forward. We will both work on how we will present our findings to the class in addition to creating the final report.