Hall B: Week 2

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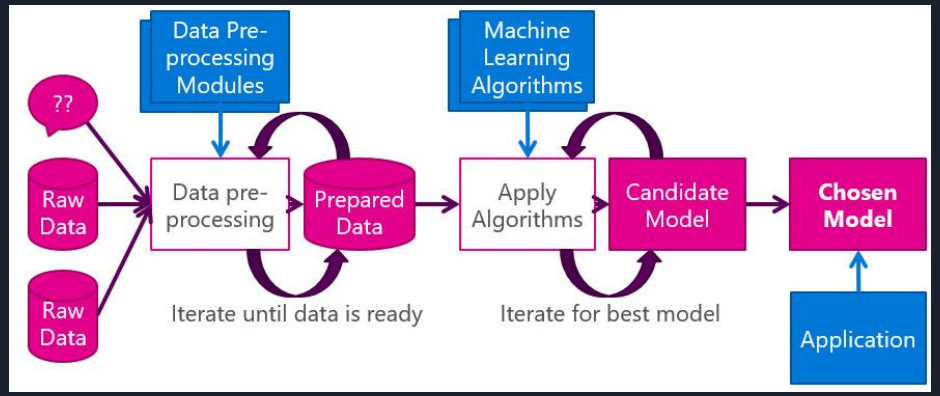
Goals for the past week

- Process the data to run it through a pre-trained model
- Find a pre-trained model to run our data through
- Run the data generated by the model through a logistic regression algorithm

Data Processing

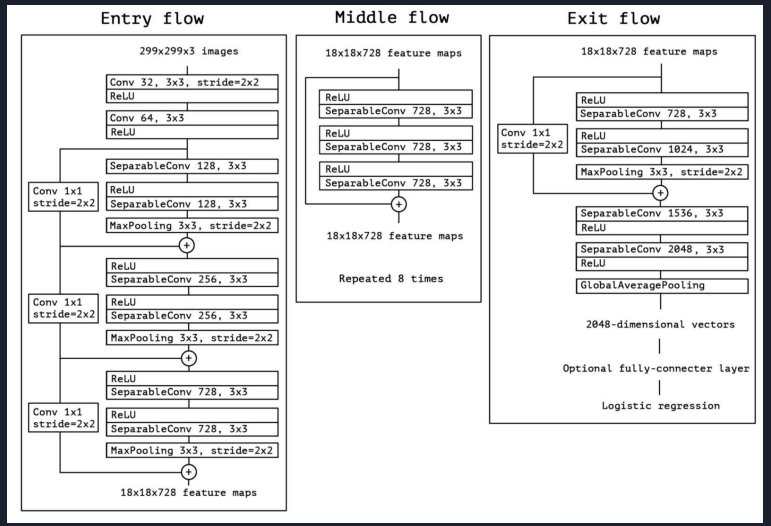
- resized images (112,112,3) and converted pixel data to numpy arrays
- shuffled data and separated into testing and training sets. (roughly 75/25 split)



112X112 image

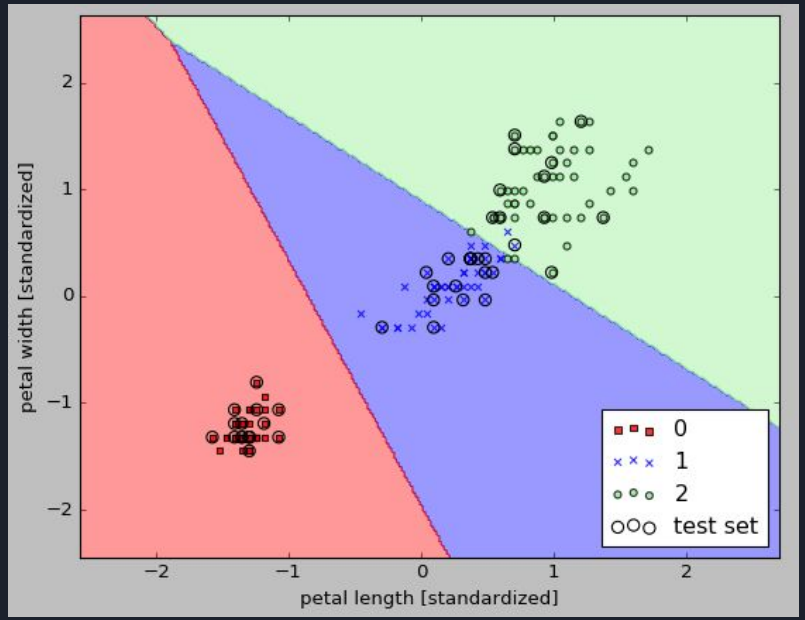
Pre-Trained Model

- used the pre-trained conv net XCeption to generate vectors from data
  - ‘froze ‘ the top layer to prevent the model from making its own predictions.
  - Converted our data to a batched Tensorflow dataset (easier for the computer to handle)
  - Generated a numpy vector for each of the images



Logistic Regression

- Used native scikit-learn logistic regression algorithms to make predictions from data vectors



Next Steps

- Fix batching problems
- Regularize our model to maximize prediction accuracy and avoid over/underfitting
- Optimize calculation speed (switch from CPU to GPU)