

Problem Statement Worksheet (Hypothesis Formation)

Build a deep learning model to differentiate between images of cats and dogs. Create a convolutional neural network using Tensorflow. Finally, the model can be deployed to an app, allowing users to input an image of their pet and receive a prediction.

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1 Context

The goal of this project is to develop a system model that can identify whether an image contains a cat or a dog.

2 Criteria for success

Once the model is trained, it can be deployed in an app which will allow users to input an image of their pet and receive a prediction.

3 Scope of solution space

The first step in building a deep learning model is to gather and preprocess the data. Then I will build the CNN portion allowing me to train the provided data. Lastly, I will test the system to confirm the accuracy of the model.

4 Constraints within solution space

The model is built on comprehensive sets of data that include training and testing examples for dogs and cats. I see no reason with proper code for any issues to arise.

5 Stakeholders to provide key insight

App developers

6 Key data sources

Cleaned and processed data will be found [here](#).

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