HOT DOG OR NOT HOT DOG?

DSI 508 HACKATHON

Bob Adams, Farah Malik, Bryan Ortiz,
Jennafer Schweyen, Andrew Seefeldt
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BACKGROUND

Objective

To develop a neural network model that can **classify images** as either "hotdogs" or “not hotdogs“ with high accuracy.

Purpose

By distinguishing between hotdogs and other objects, our model can **aid in various applications** such as food recommenders, dietary apps, and image-based search engines.

ANALYSIS AND METHODOLOGY

STEP 1

Data Ingestion

STEP 2

Data Preprocessing (Resize, Rescale)

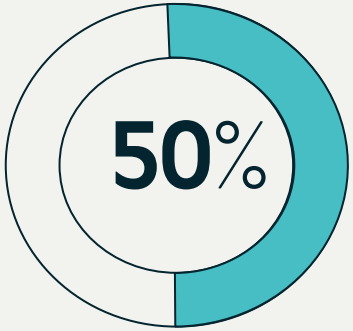
STEP 3

CNN Building (layers, nodes, regularization..)

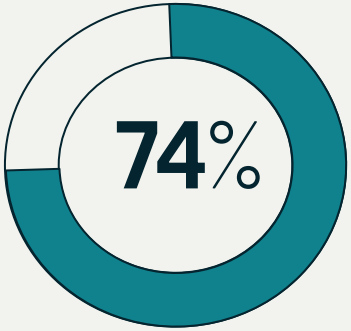
STEP 4

CNN Testing

RESULTS

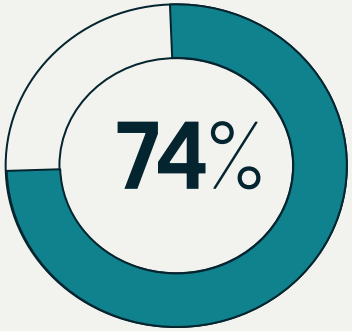


BASELINE



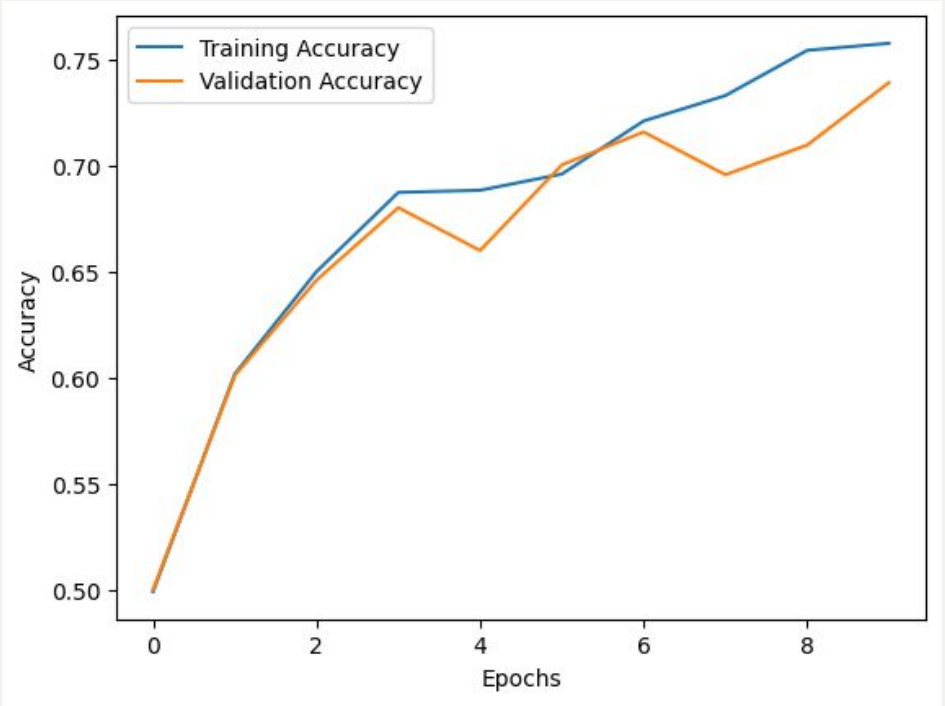
CNN MODEL

RESULTS – OUR MODEL



CNN MODEL

- 1 input layer,
- 3 Conv2D hidden layers
  - RELU activation
  - MaxPooling
  - 10% - 50% Dropout
- 1 Flattened Dense output layer
  - Sigmoid activation
- 10 Epochs used for fitting



RECOMMENDATIONS

01 Continue model iteration - including data augmentation (Flip, Rotate, Scale are included)

02 Instantiate our model in a hosted streamlit app (Upload in progress!)

03 Leverage our model to help identify whether pictures are, indeed, of hot dogs.

QUESTIONS?