Are You Hungry?

DSI 508

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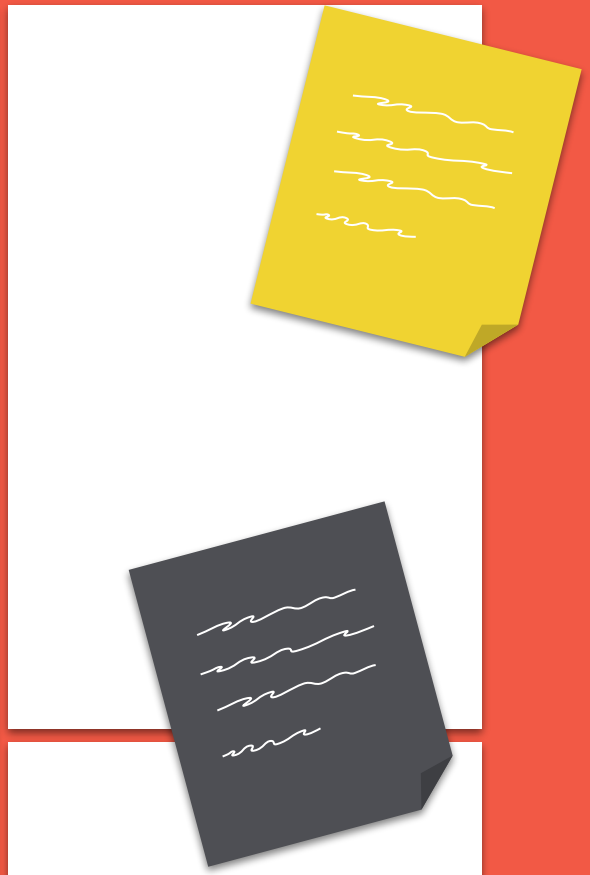

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The Problem

Recently, there has been a global epidemic of hotdog pictures flooding social media platforms. The CDC has announced the source of the virus to be ‘online trolls’.

To tackle the epidemic, our team has been hired to build an AI model to block any hotdog pictures from being uploaded to social platforms. Although this would marginalize hotdog loving communities, national security has taken precedent. *Surprise Surprise*!

Our Model

Our model attempts to break through the:

Baseline Accuracy: 50%

Our model utilizes transfer learning with the VGG19 pretrained model to make predictions on ~3500 images to check if there is a **hotdog** in them.

Model Specifications

Preprocessing

- Data augmentation to increase variety
- Shear Transformation
- Zooming
- Horizontal Flip

CNN Model

Pre Trained Model

- VGG 19 - untrainable
- + Flatten
- + Dense
- Output: binary classification

VGG-19

- VGG19 is a pre-trained deep convolutional neural network developed by the Visual Geometry Group (VGG) at Oxford. It consists of 19 layers including 16 convolutional layers, 3 fully-connected layers, and 5 max-pooling layers, leading to a deep yet efficient network structure for image processing.

Model Results

Like all respectable models, our model is still running. However, here are the most recent accuracy scores:

Baseline Accuracy: 50%

Our Model: 85.25%

The model has successfully worked and secured billion dollar company executives their ‘23 bonuses!

That’s All Folks!