Of Cats and Dogs
Classifying Images with Custom Vision Service

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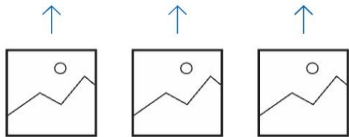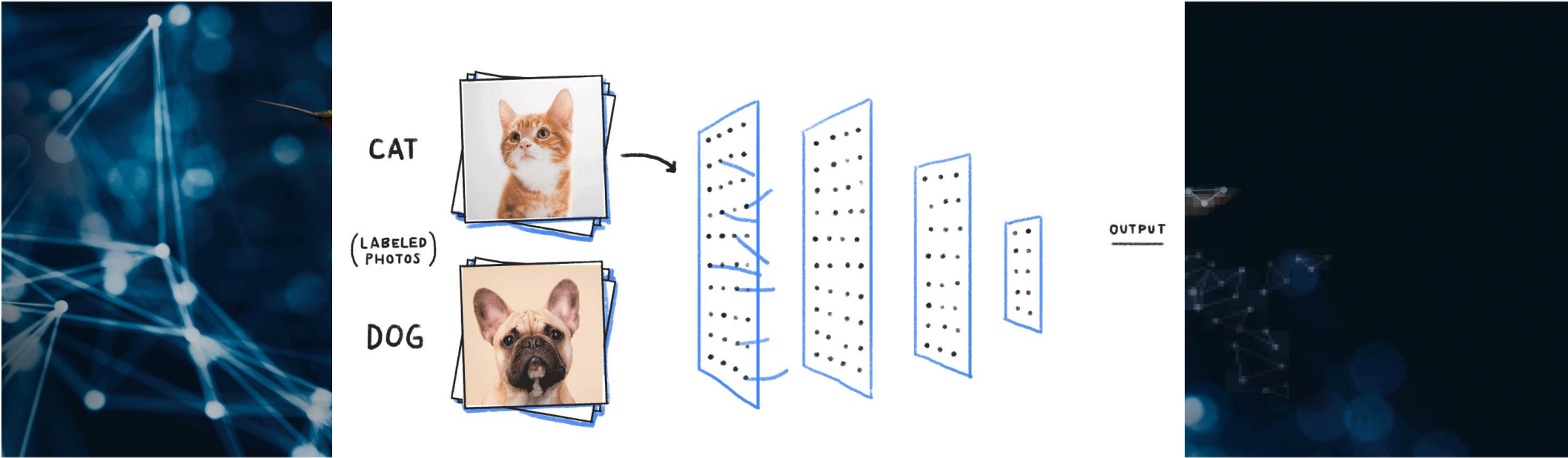# The Plan

- Background and Overview
- Online Demos
- Offline Demos (exports)

customvision.ai

Microsoft | Cognitive Services | Custom Vision

CAT

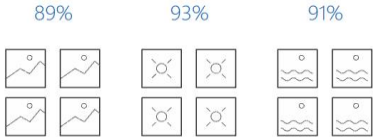(LABELED PHOTOS)

DOG

OUTPUT

↑ ↑ ↑

Upload Images

Bring your own labeled images, or use Custom Vision to quickly add tags to any unlabeled images.

Train

Use your labeled images to teach Custom Vision the concepts you care about.

89%   93%   91%

Evaluate

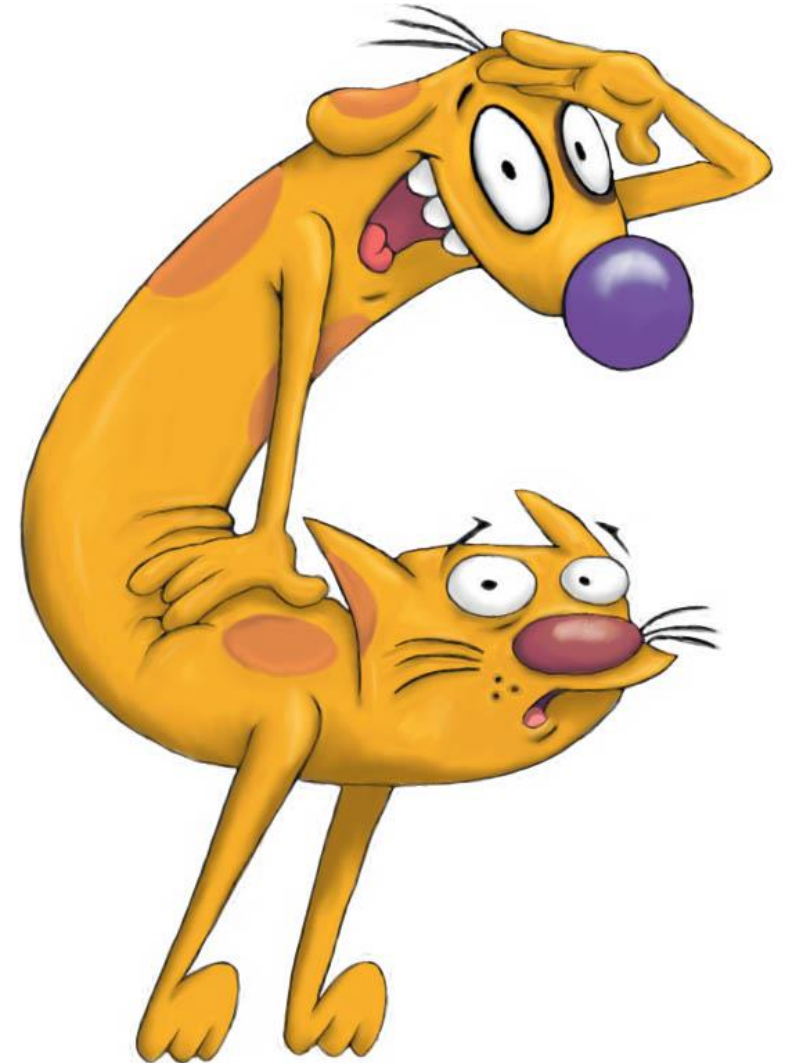Use simple REST API calls to quickly tag images with your new custom computer vision model.

Online Demos

Demo 1
Training and Prediction
Using Web Interface/REST

Build a classifier (10 min)
A) Create Custom Vision project
B) Add Images
C) Train the classifier
D) Test the classifier
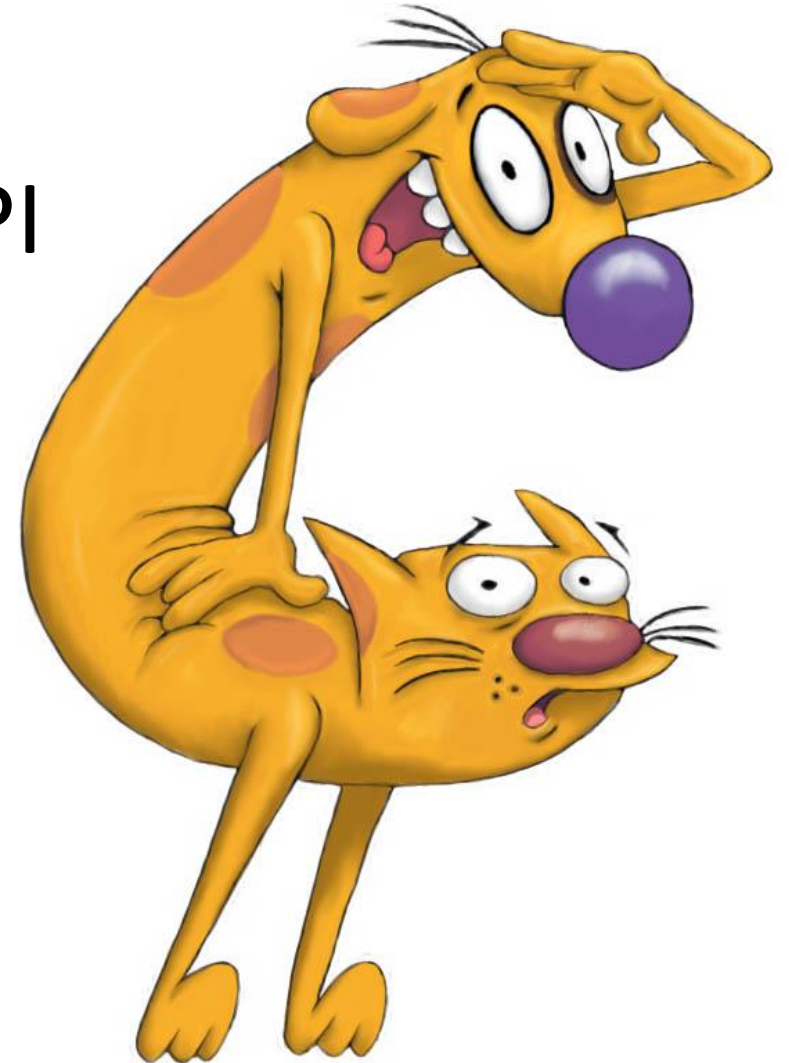
Online Demos

Demo 2
Training and Prediction
Using C# and Custom Vision Service API

Use the training API (5 min)
A) Prepare the solution
B) Finish the training application
C) Add required configuration settings
D) Run the console application

Use the prediction API (5 min)
A) Finish the prediction application
B) Add required configuration settings
C) Run the console application

Offline Demos

iOS

CoreML
iOS 11
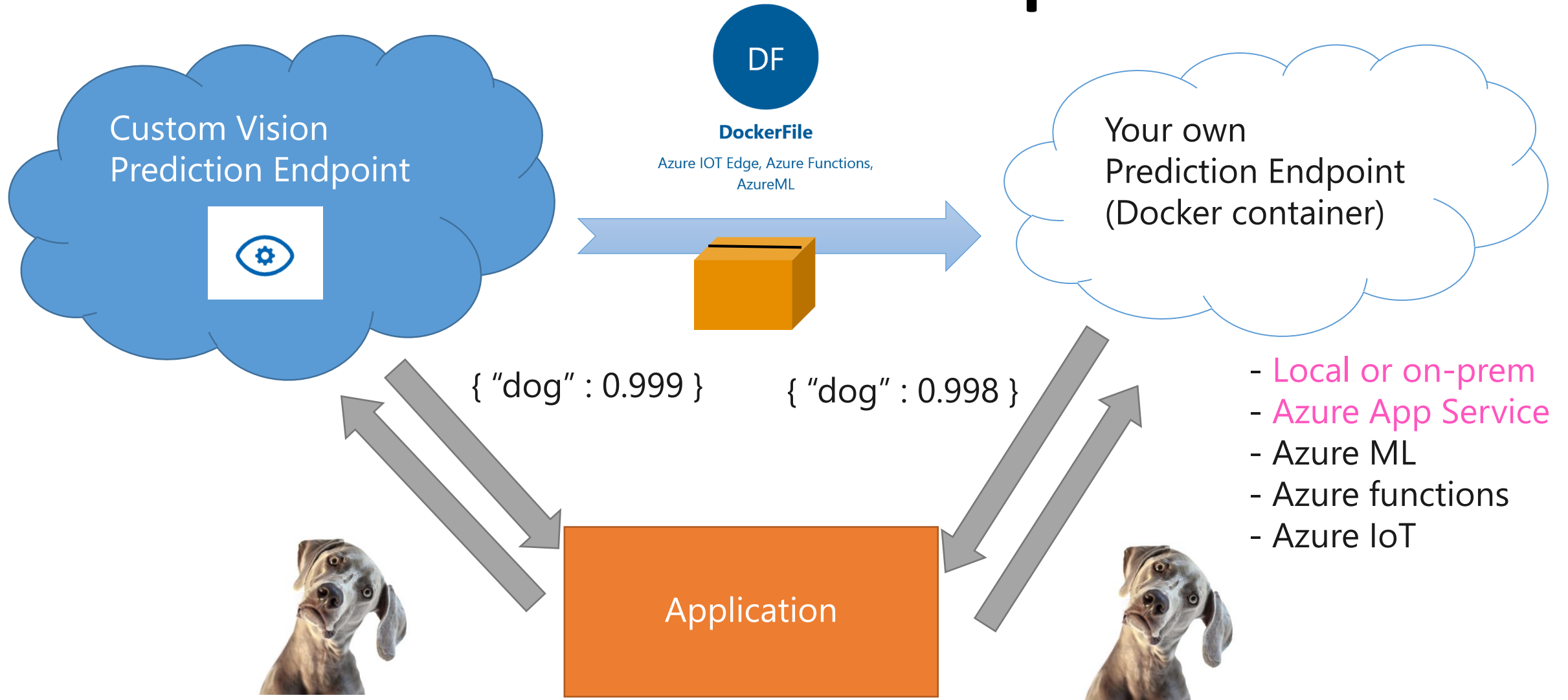
TF

TensorFlow
Android

ONNX

ONNX
Windows ML

DF

DockerFile
Azure IOT Edge, Azure Functions, AzureML

Model Export
- Demo 3: Android
- Demo 4: ONNX (New!🥂)
- Demo 5: Docker (New!🥂)

Docker Container Export

DF

DockerFile

Azure IOT Edge, Azure Functions, AzureML

Custom Vision Prediction Endpoint

Your own Prediction Endpoint (Docker container)

{ "dog" : 0.999 }   { "dog" : 0.998 }

- Local or on-prem
- Azure App Service
- Azure ML
- Azure functions
- Azure IoT

Application

Summary/Resources

Custom Vision Service Documentation
https://tinyurl.com/customvisionai

Custom Vision Service Intro Lab
https://tinyurl.com/vision-intro