Building and Training a Custom Vision Service Model

Andy Butland
SOFTWARE ARCHITECT AND DEVELOPER

@andybutland web-matters.blogspot.it

Overview

Introducing your sample application

Build, train, and evaluate a Custom Vision Service model

A Garden Birds Classifier

Inspired by the RSPB's "Big Garden Birdwatch"

Build a garden bird identification application to recognize birds from photos

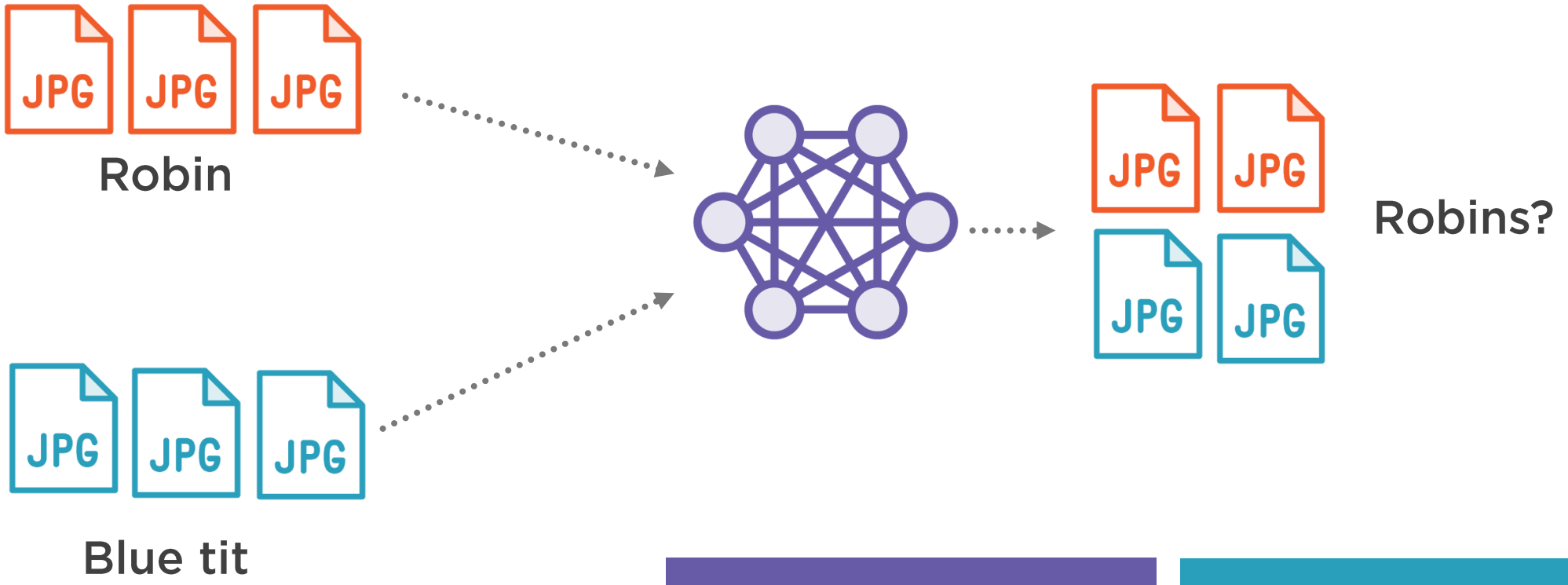
Training and Evaluation Images

Demo

Create a Custom Vision Service model

- Using the Azure portal interfaces
- Upload and tag images
- Train the model
- Evaluate the predictive potential

Precision and Recall



Precision

50% (3 out of 6 images predicted correctly)

Recall

67% (2 out of 3 robins predicted correctly)

Improving the Model

Increase number of images

- Minimum of 50 per tag

Balance number of images across tags

Diverse range of images

- Background, lighting, viewpoint

Negative image handling

Use the results of positive or negative predictions

Summary

Built, trained, and evaluated a Custom Vision Service model via the Azure portal interfaces

Understood precision and recall statistics

Considered model improvements