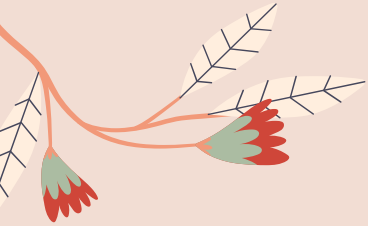# Bird Identification

Emily Rogalski

Introduction

Building community interest in local wildlife is a great way to protect and preserve the natural beauty of the planet. Birds are an important part of every ecosystem, and many species are rare or endangered.

Goal

Build a model that will identify North American birds in order to make science more easily accessible and cultivate community interest
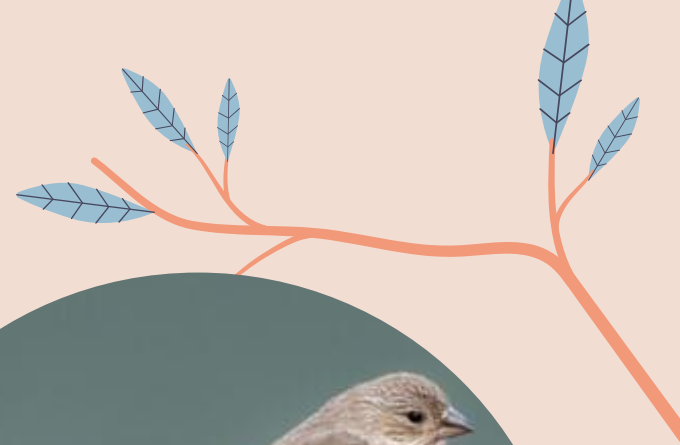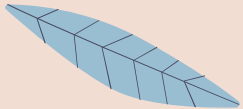
The Data

- ❏ 48,562 images

- ❏ 555 classes

- ❏ from Cornell Lab of Ornithology

Considerations

❏ Female and male birds of the same species have different colorations and shapes
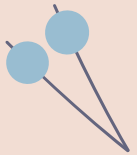
❏ Juvenile birds look completely different than adults

The Model

❏ EfficientNet - B0

❏ Resolution: 224 x 224

❏ Image augmentation: vertical flip and rotation, cropped images

❏ Accuracy: **0.81** for 555 classes

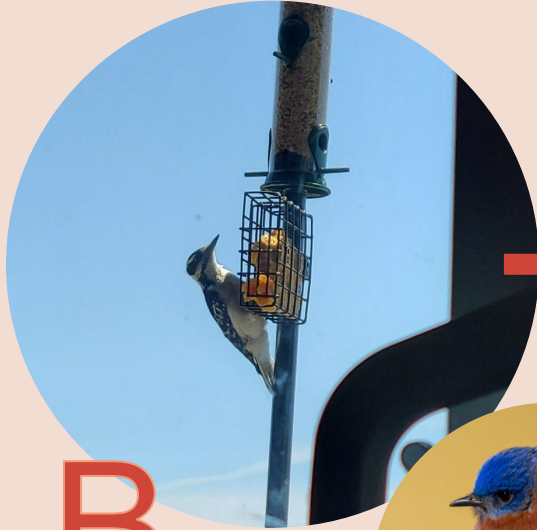# Misclassifications
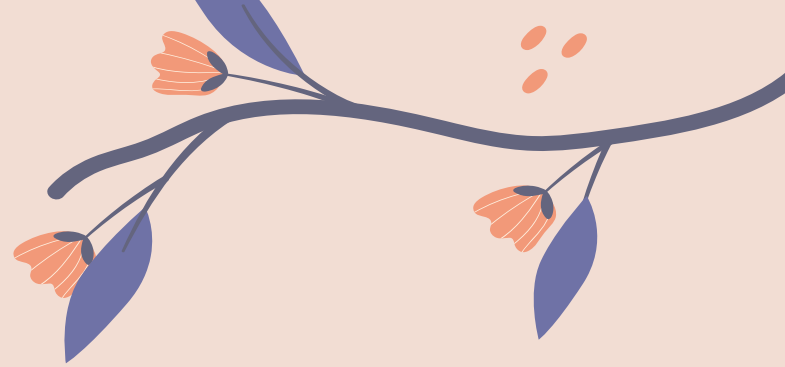
A

Misclassifications

Streamlit App

Next Steps

❏ Continue increasing accuracy

❏ Add tilt option to crop box on Streamlit app?

❏ Eventual goal: pair model with cameras at feeders

Thanks!

Do you have any questions?