


ANIMALIA EXPLORER

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Outline

Our Views

Prototype

CoreML issues

OpenAI issues

ARKit issues

Future outlook

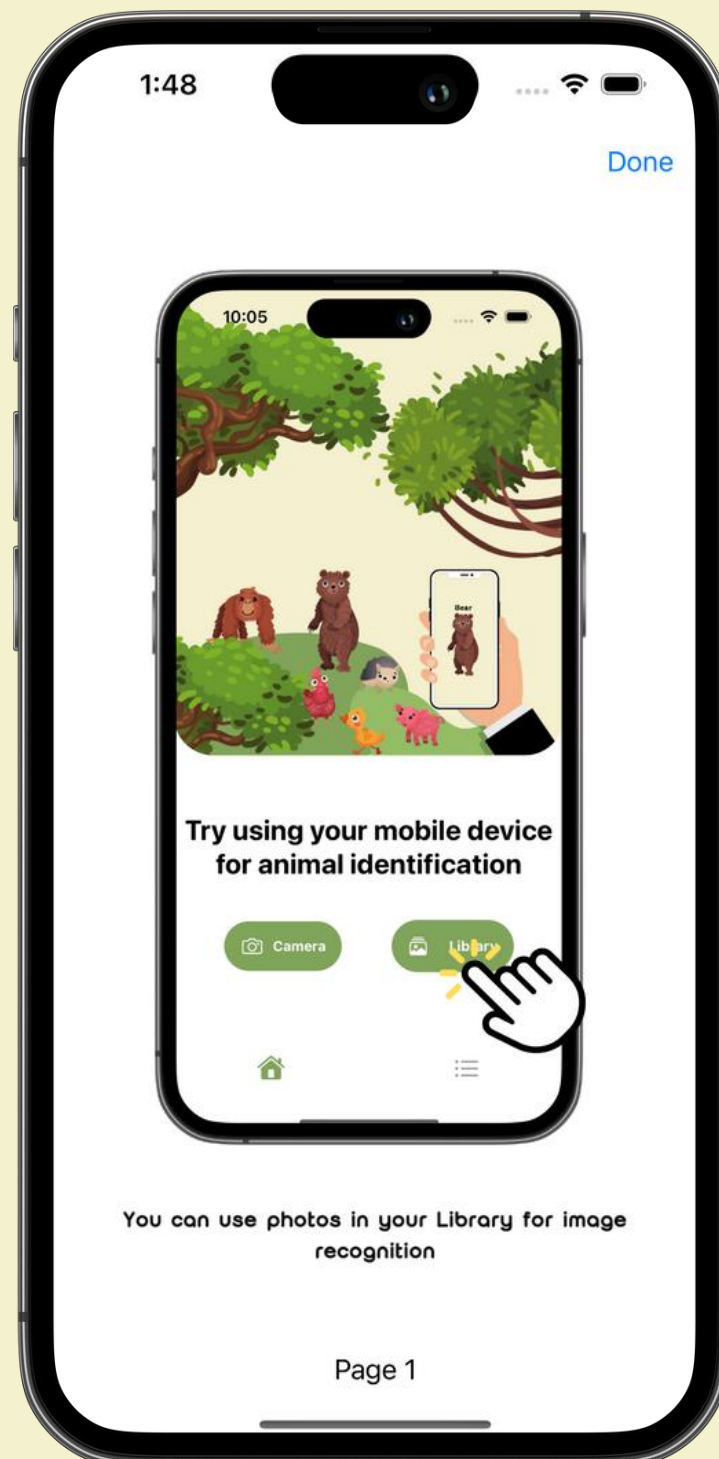
Reference

Demo

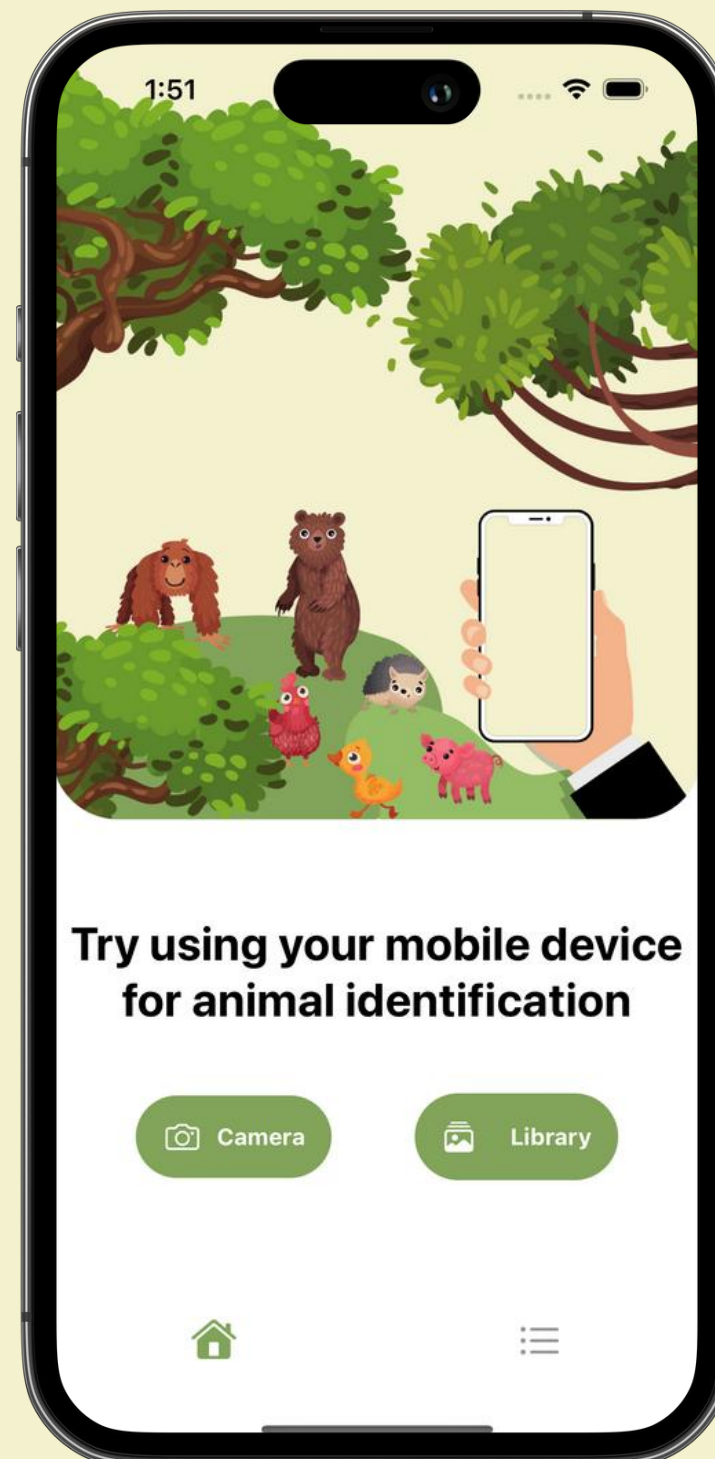


Our Views

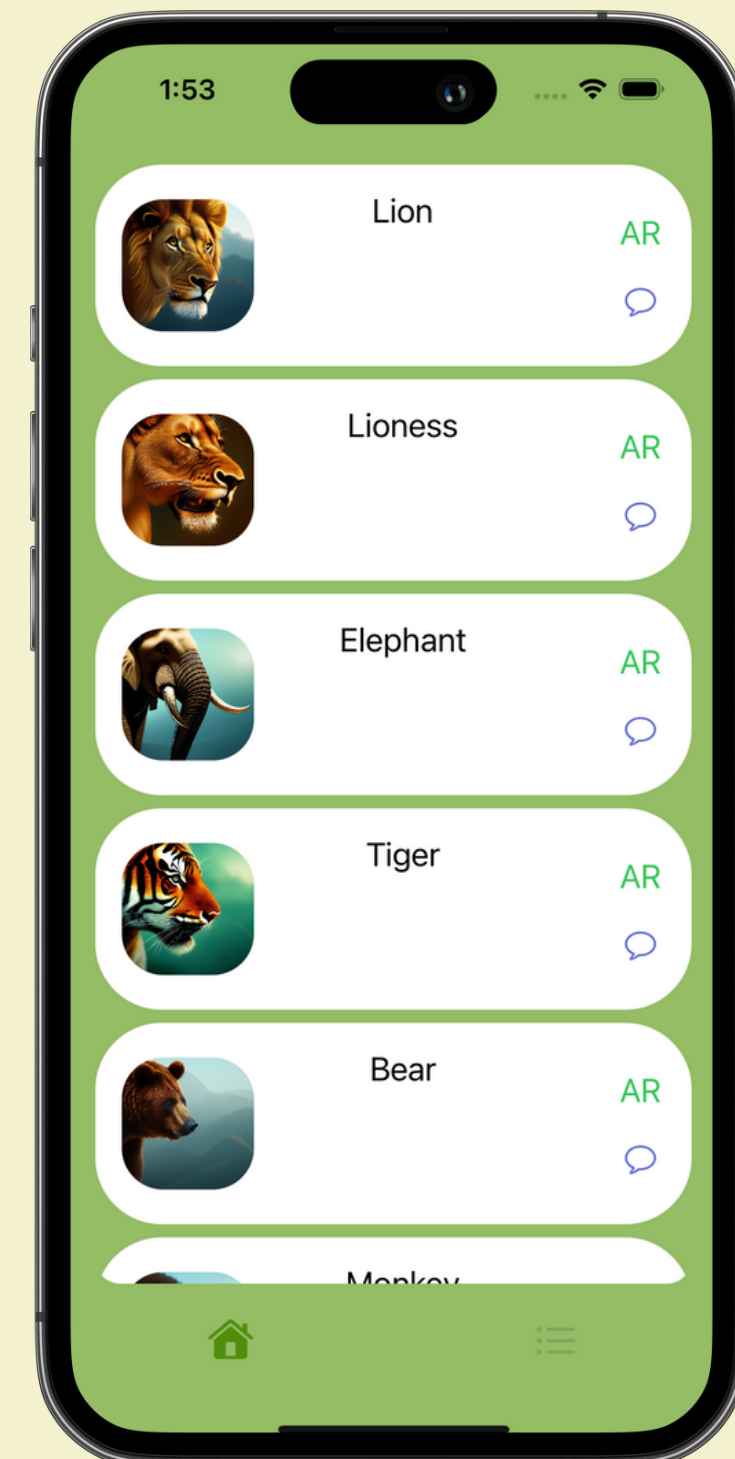
NavigationViewModel



MLRecognitionViewModel

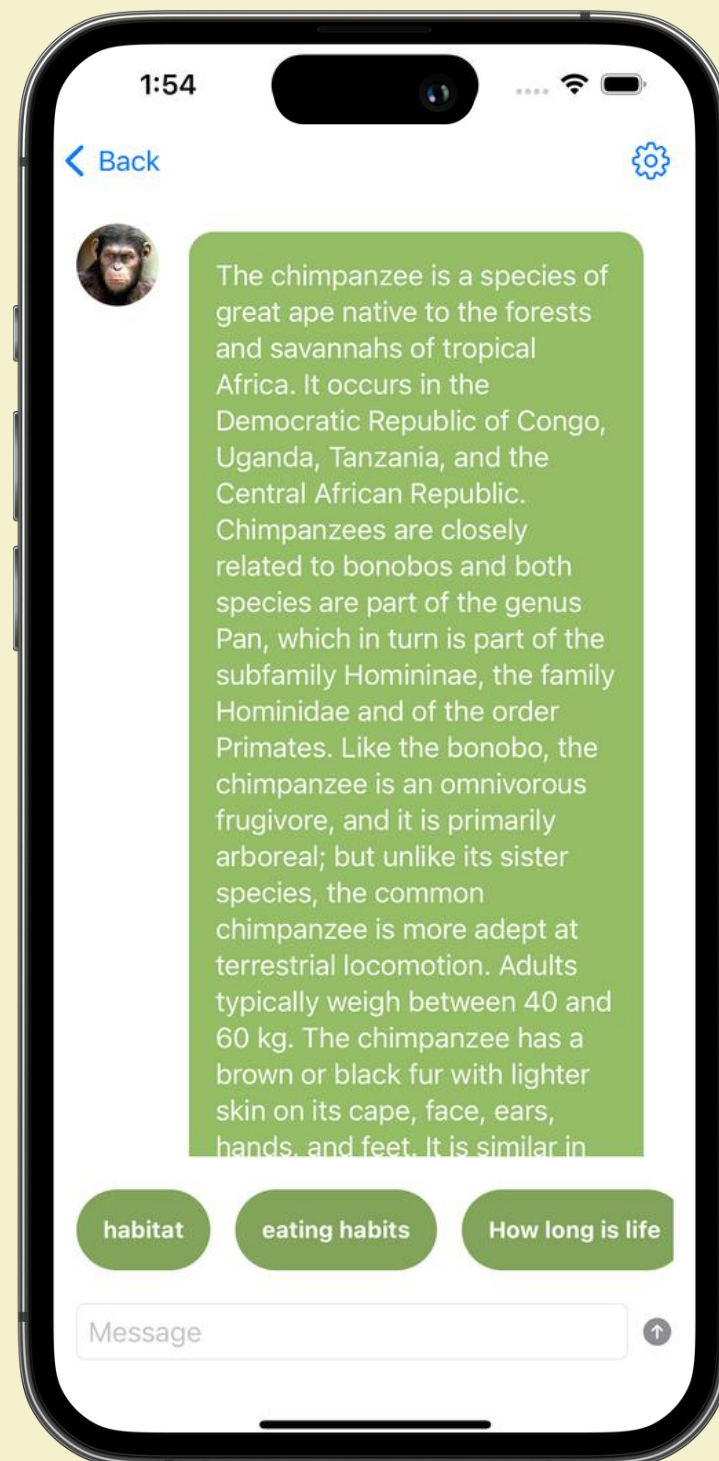


ListViewModel

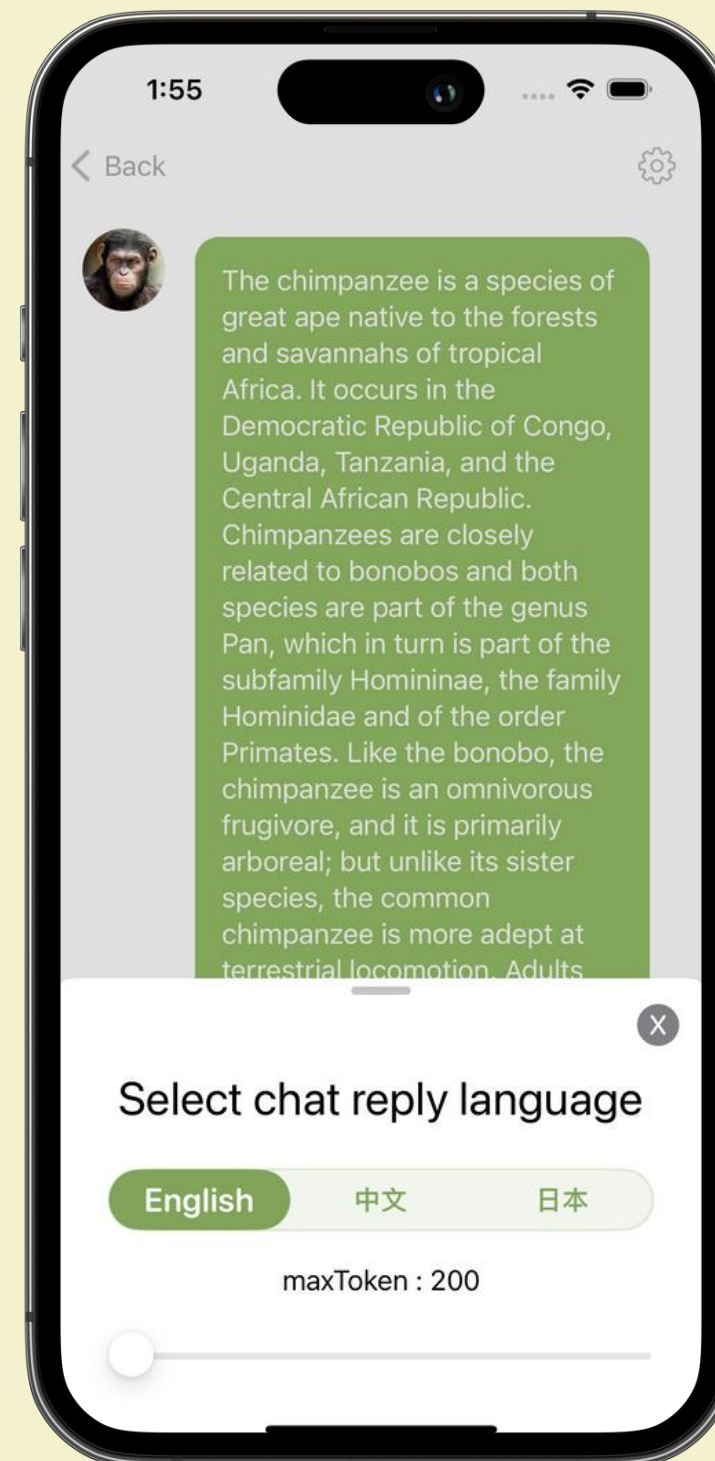


Our Views

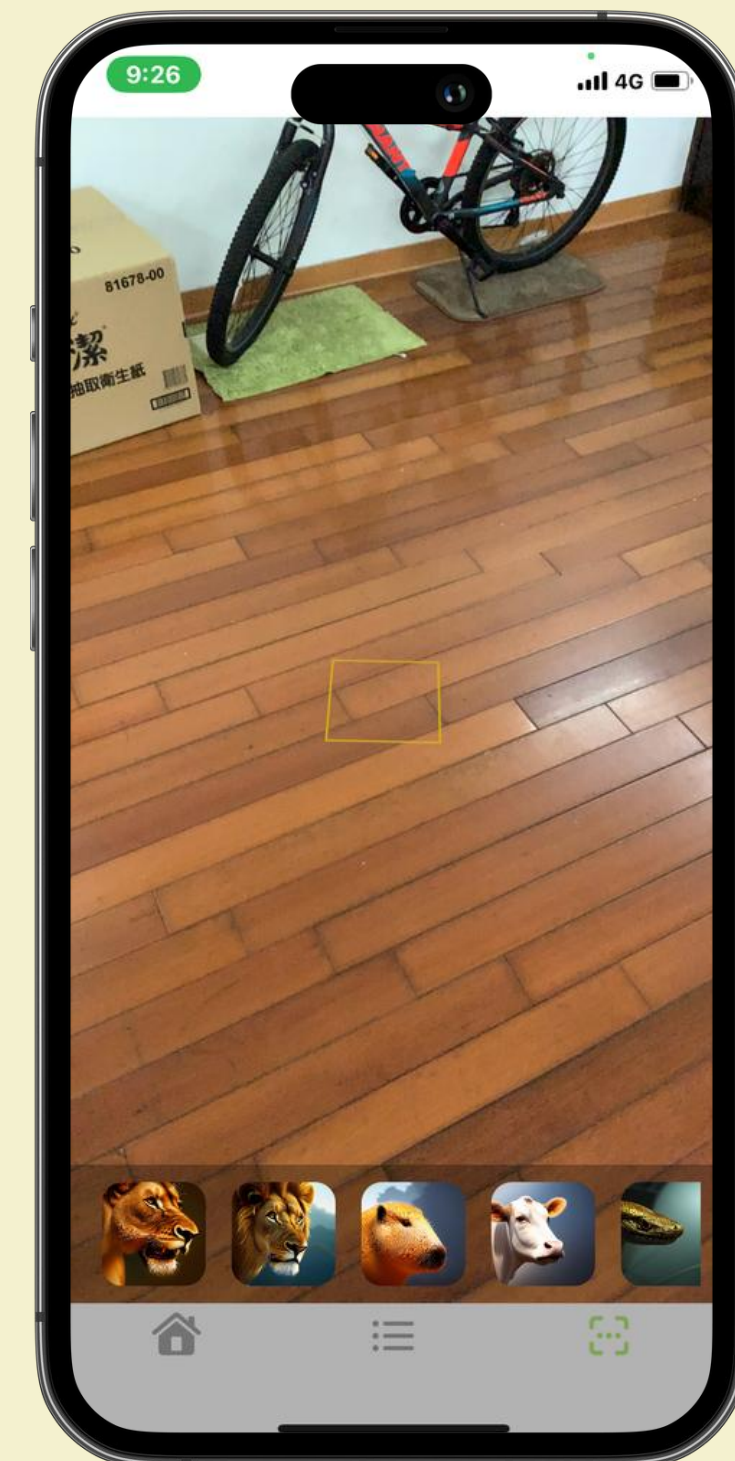
ChatViewModel



LanguageViewModel



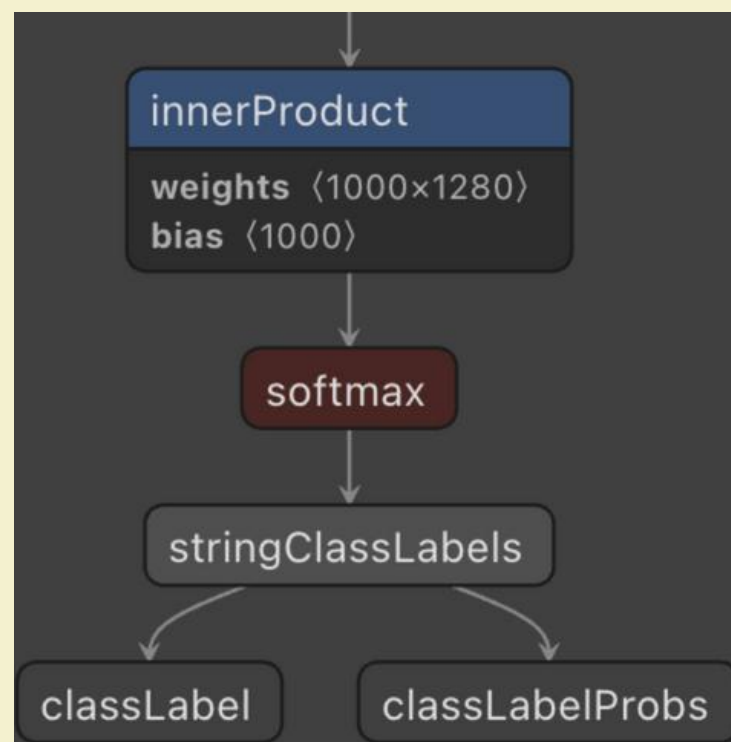
ARViewModel



Prototype



CoreML issues



Add an extra condition for softmaxND · Issue #1417 · apple/coremlto...

coremltools/coremltools/models/neural_network/builder.py Line 982 in e3032bf
if input in layer_outputs and layer_type == 'softmax': The recent

<https://github.com/apple/coremltools/issues/1417>

apple/coremltools

#1417 Add an extra condition for softmaxND

10 comments

abhimanyuiris96 opened on March 3, 2022

Updatable PyTorch model · Issue #1705 · apple/coremltools

Hello, I am trying to convert an off the shelf PyTorch model to be updatable. The model I am using with CoreML doesn't have a softmax layer at the end

<https://github.com/apple/coremltools/issues/1705>

apple/coremltools

#1705 Updatable PyTorch model

13 comments

nicknikolov opened on December 8, 2022

Output specifications support for Pytorch converter · Issue #775 · a...

Describe your Feature Request As the documentation explicitly point it out: 'it is good practice to think about the interface to the model. This includes

<https://github.com/apple/coremltools/issues/775>

apple/coremltools

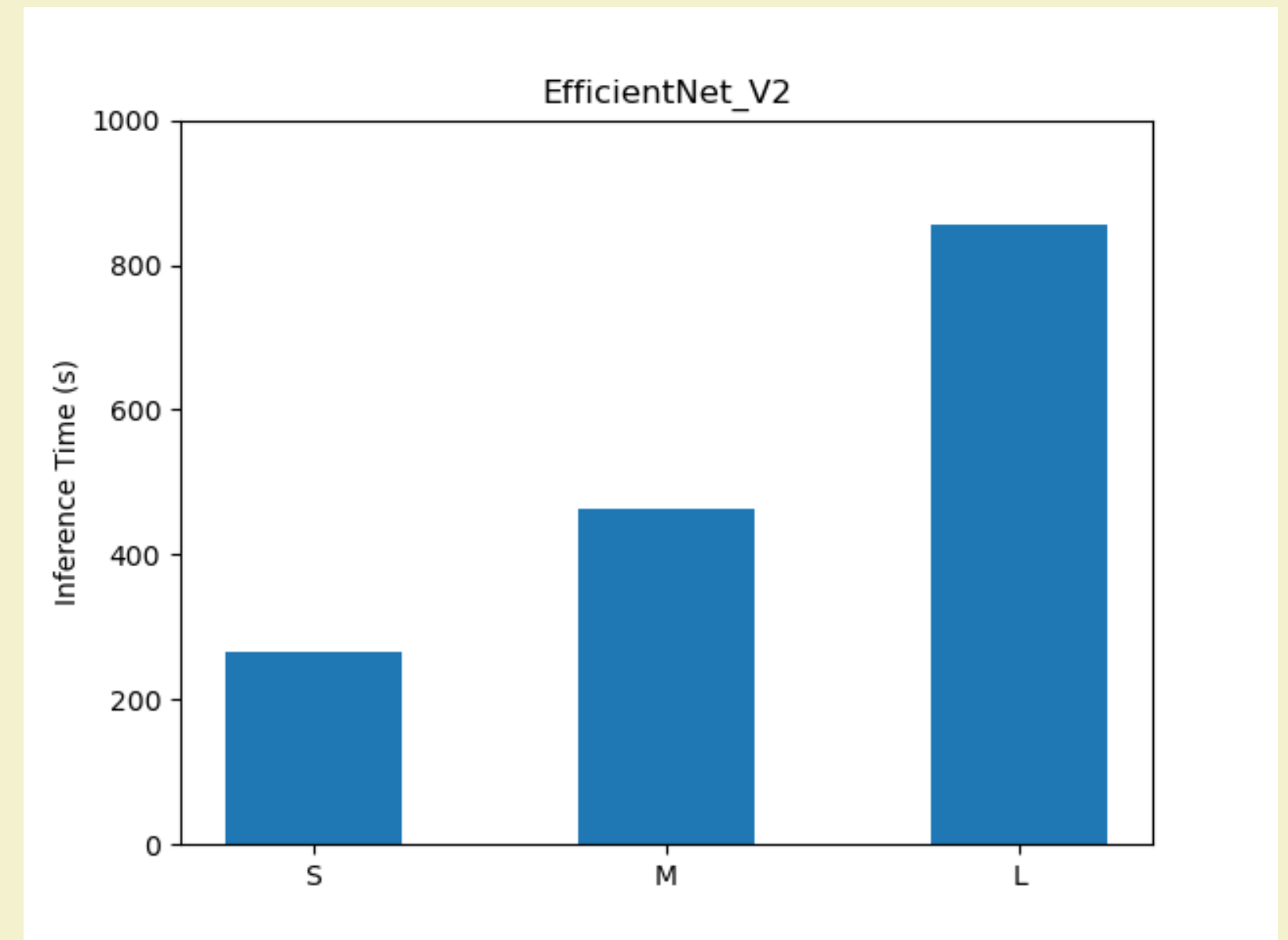
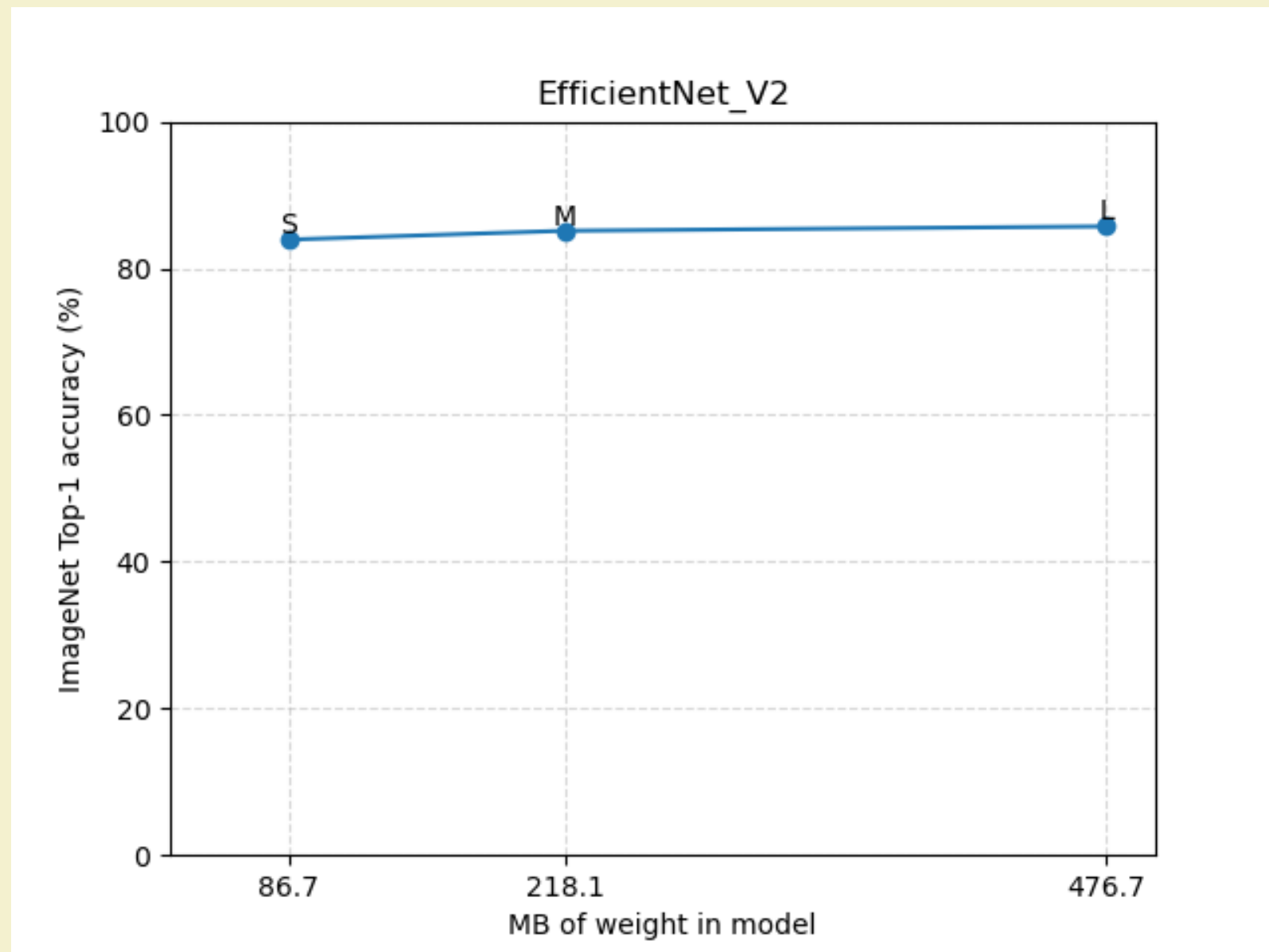
#775 Output specifications support for Pytorch converter

12 comments

virgile-blg opened on July 9, 2020

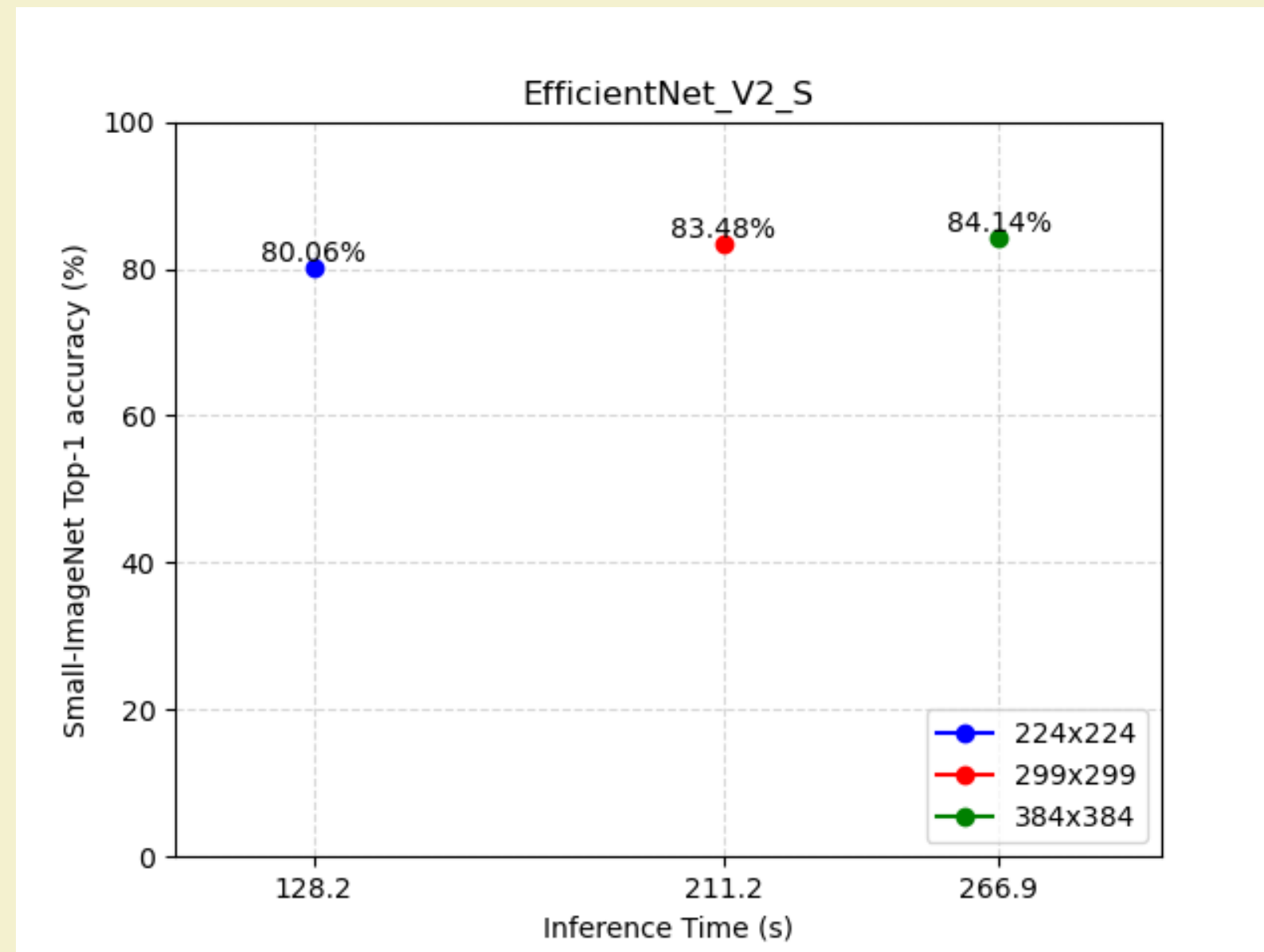
CoreML issues

Compare the differences among different EfficientNetV2 models (S, M, L) in terms of ImageNet Top-1 accuracy and model size



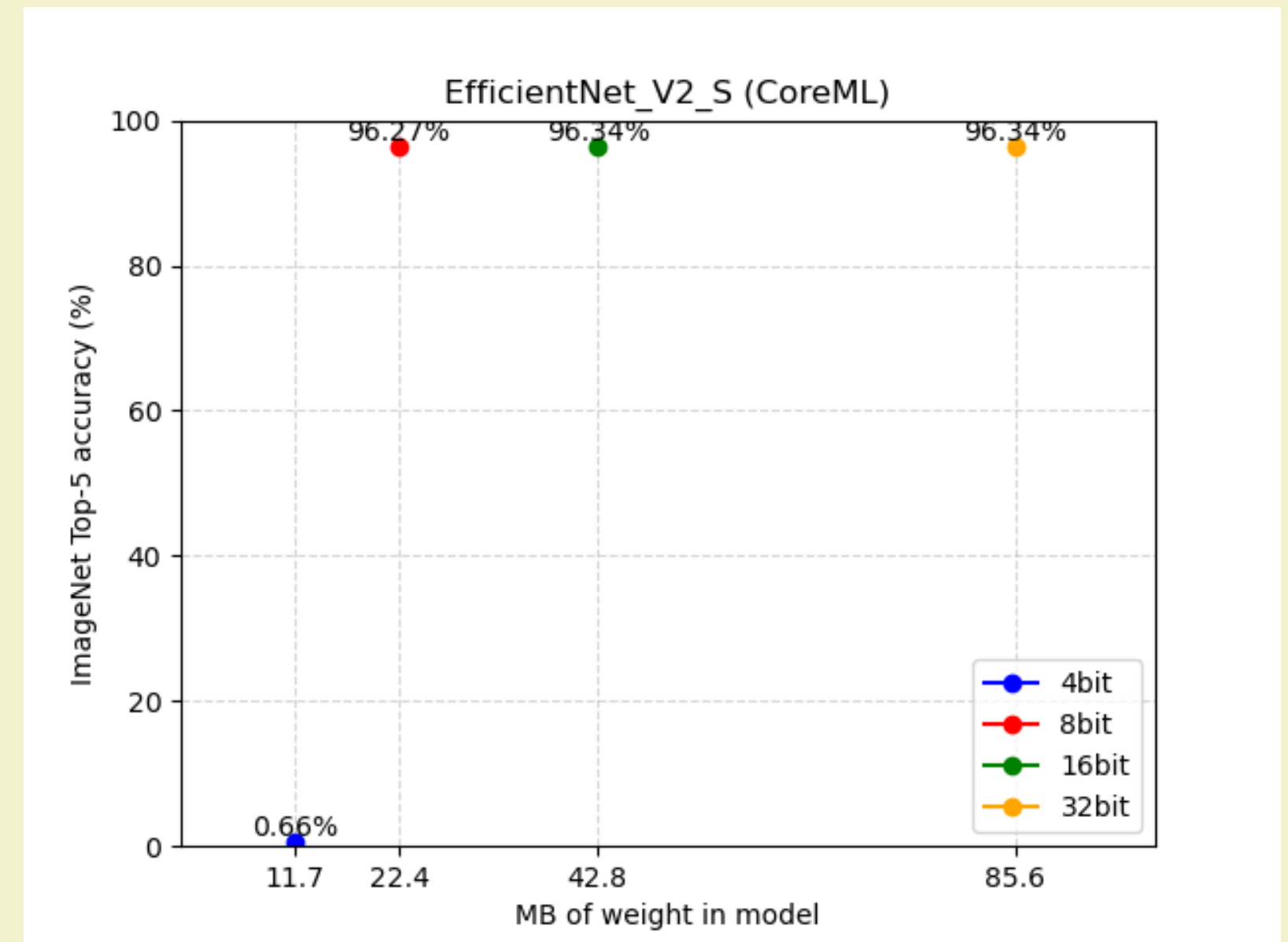
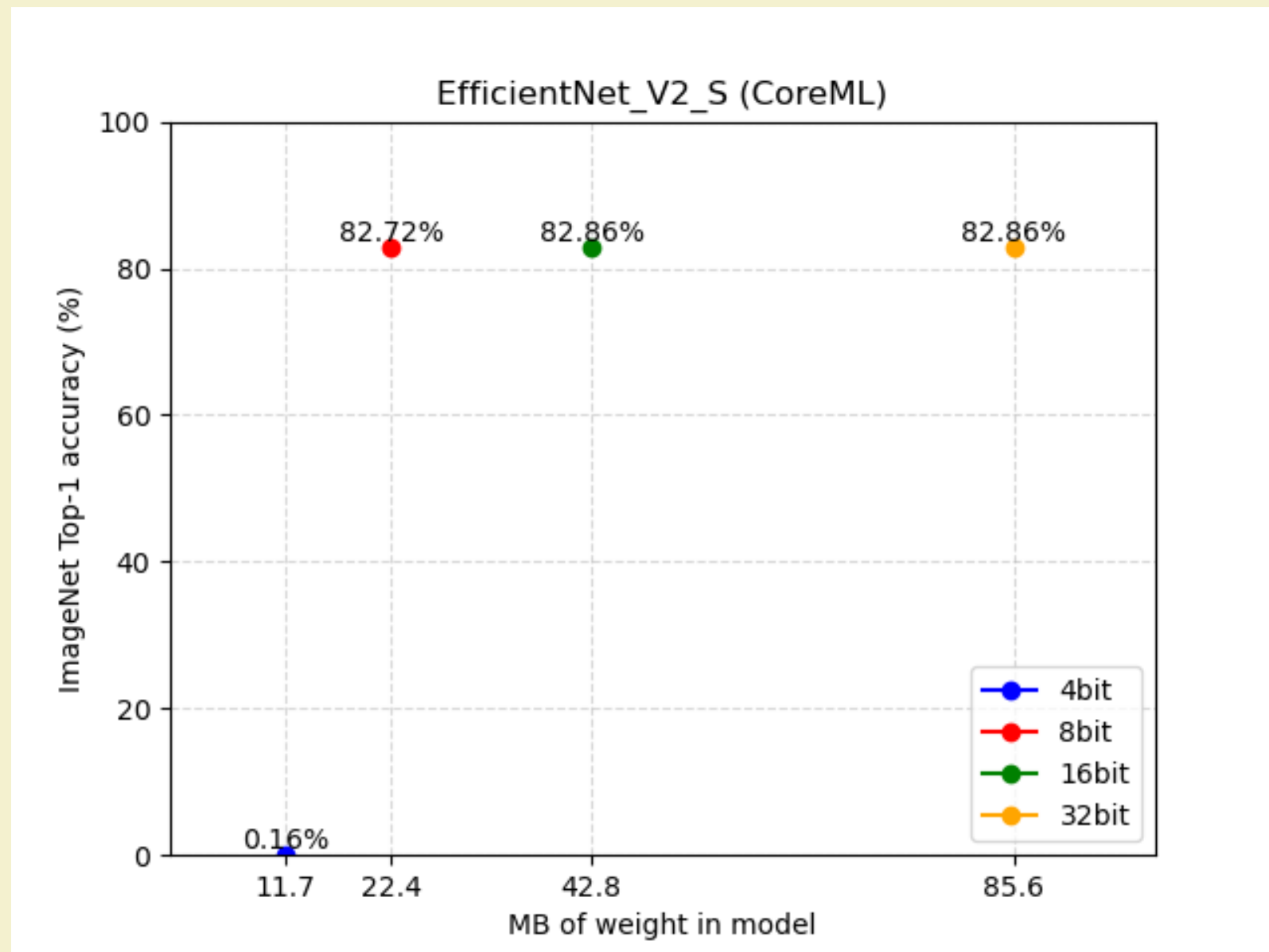
CoreML issues

Compare the Small-ImageNet Top-1 accuracy and inference time of different input image sizes in EfficientNetV2_S

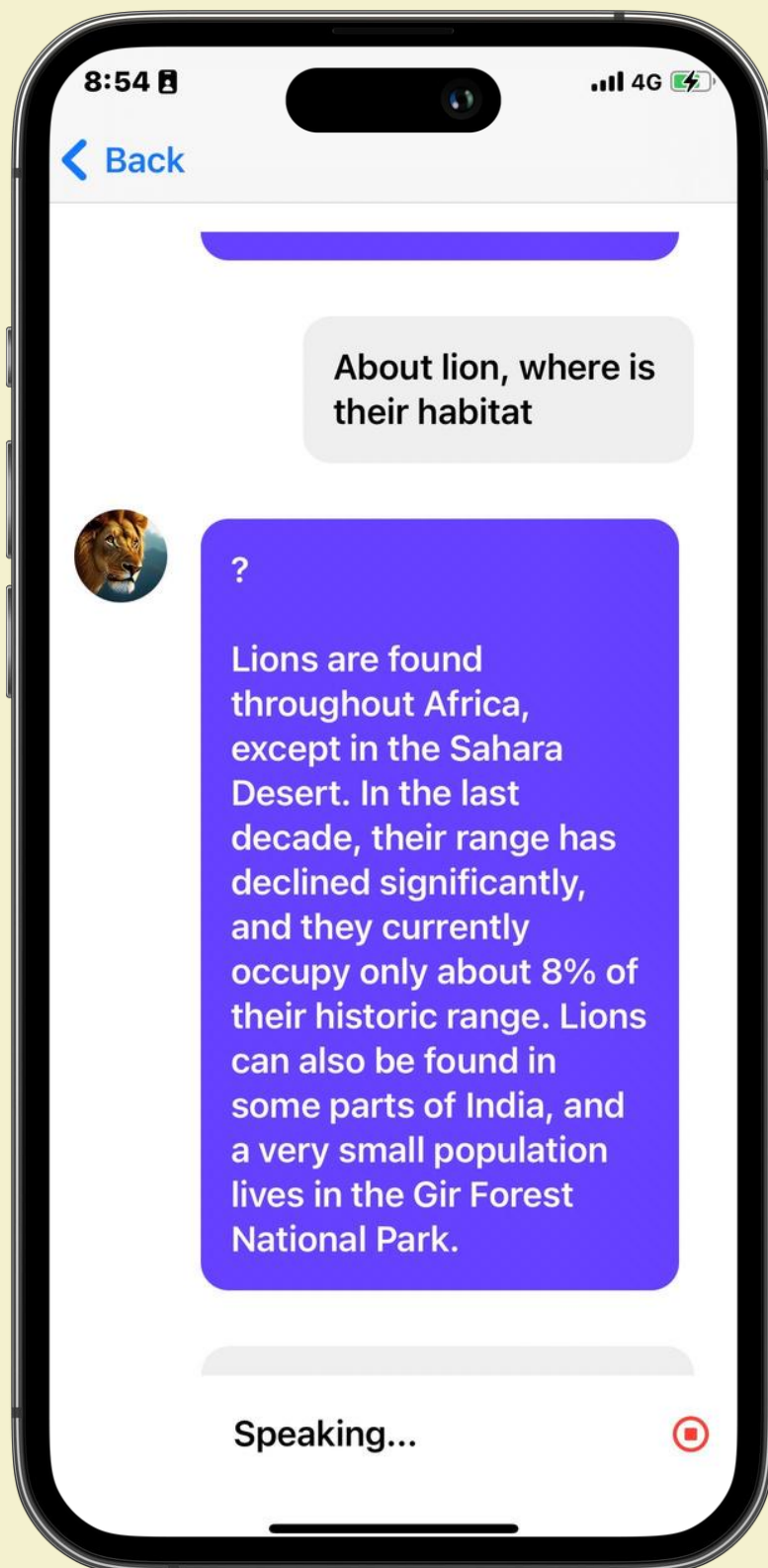


CoreML issues

Compare the quantized accuracy and model size of EfficientNetV2_S (ImageNet Top-1 and Top-5 accuracy)



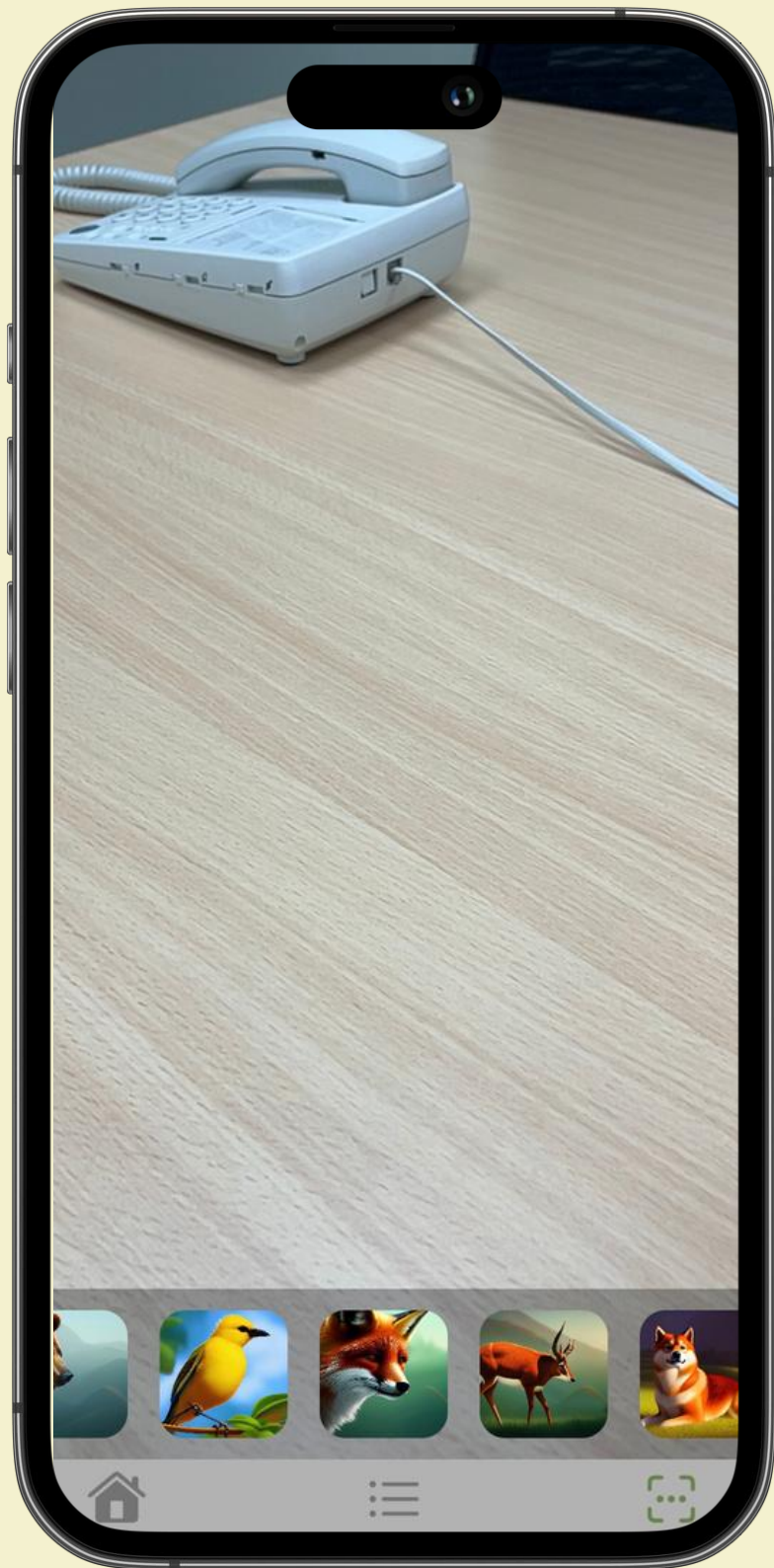
OpenAI issues



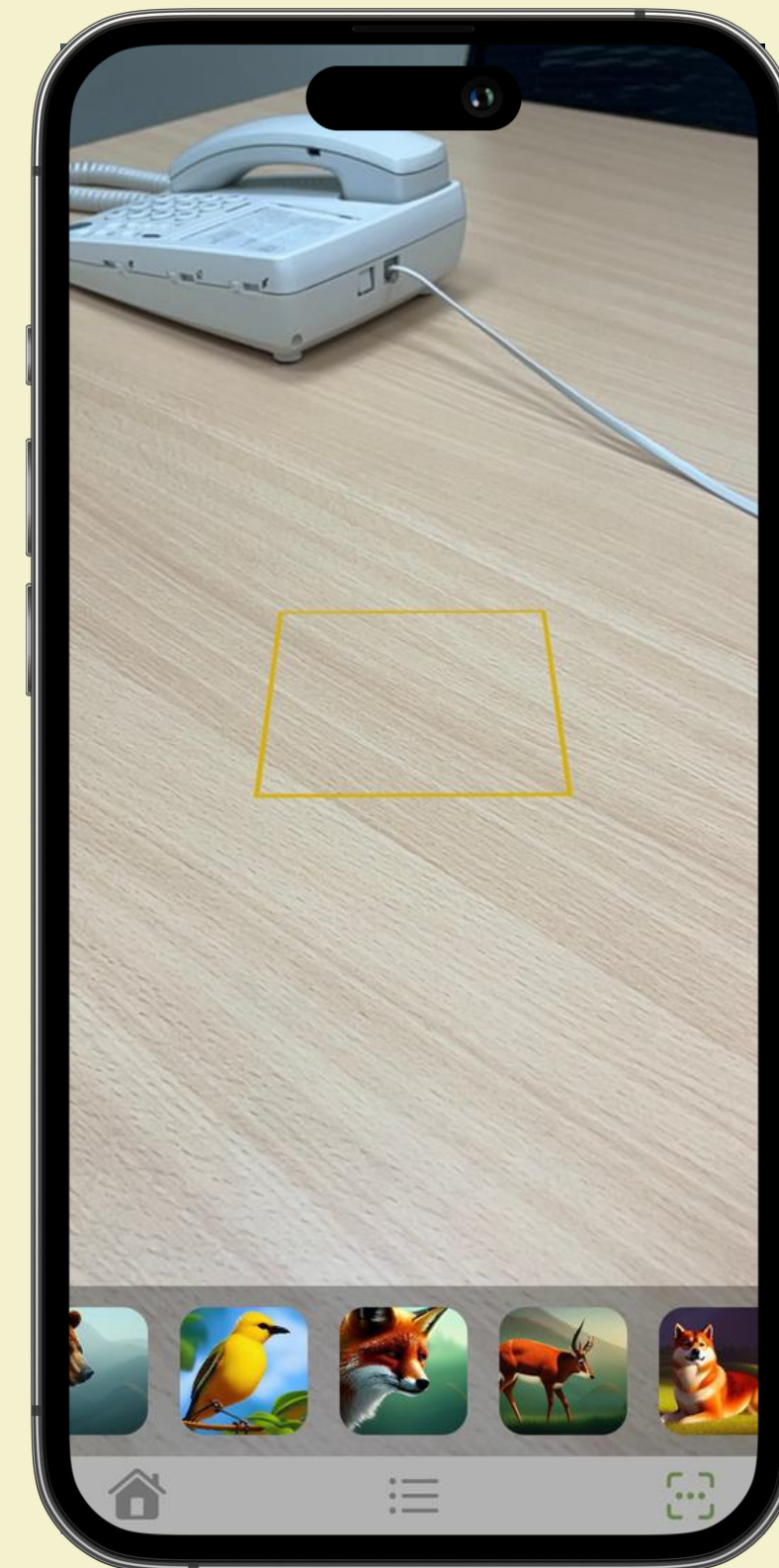
```
models.append("\(text)")
let chatMessage = "About animal \(animal) \(text)
                  reply me in \(replyLanguage)"

viewModel.send(text: chatMessage, maxTokens:
               token) { response in
DispatchQueue.main.async {
```

ARKit issues



FocusEntity



ARKit issues

swift , load model function can't play animation but load function I can play

```
let me=try! ModelEntity.load(named: filename)
print("count is \(me.availableAnimations.count); )
```

 <https://stackoverflow.com/questions/70864045/swift-load-model-function-cant-play-animation-but-load-function-...>



```
let modelEntity = try! ModelEntity.loadModel(named: filename)
```



```
let modelEntity = try! ModelEntity.load(named: filename)
```

ARKit issues



```
76 let scaleLevel1 = ["Fox"]
77 let scaleLevel2 = ["Butterfly", "Bird"]
78 let scaleLevel3 = ["Dog"]
79 let scaleLevel4 = ["Antelope", "Snake", "Tiger", "Alpaca", "Lion"]
80 let scaleLevel5 = ["Bear"]
81
82 if scaleLevel1.contains(modelName) {
83     modelEntity.scale = SIMD3(0.00002, 0.00002, 0.00002)
84 }
85
86 if scaleLevel2.contains(modelName) {
87     modelEntity.scale = SIMD3(0.0005, 0.0005, 0.0005)
88 }
89
90 if scaleLevel3.contains(modelName) {
91     modelEntity.scale = SIMD3(0.002, 0.002, 0.002)
92 }
93
94 if scaleLevel4.contains(modelName) {
95     modelEntity.scale = SIMD3(0.005, 0.005, 0.005)
96 }
97
98 if scaleLevel5.contains(modelName) {
99     modelEntity.scale = SIMD3(0.05, 0.05, 0.05)
100 }
```

```
41 @objc func scalePiece(_ recognizer: UIPinchGestureRecognizer) {
42
43     guard let view = self.view else { return }
44
45     let tapLocation = recognizer.location(in: view)
46
47     if let entity = view.entity(at: tapLocation) as? ModelEntity {
48         if recognizer.state == .began || recognizer.state == .changed {
49             let scale = recognizer.scale
50
51             if Float(scale) > 1.0 {
52                 entity.scale = entity.scale + (entity.scale[0] * 0.02)
53             }
54             else {
55                 entity.scale = entity.scale - (entity.scale[0] * 0.02)
56             }
57         }
58     }
59 }
```

Future outlook

- Incorporating additional animal recognition models to accommodate different environments.
- Adding depth estimation in augmented reality.
- Enhanced UI design with a more polished and visually appealing interface.

Reference

MLRecognitionViewModel

- <https://www.appcoda.com.tw/coreml-introduction/>
- <https://www.appcoda.com.tw/swiftui-camera-photo-library/>
- <https://coremltools.readme.io/docs>
- <https://pytorch.org/>

LanguageViewModel

- <https://github.com/pratikg29/Custom-SegmentView?ref=iosexample.com>

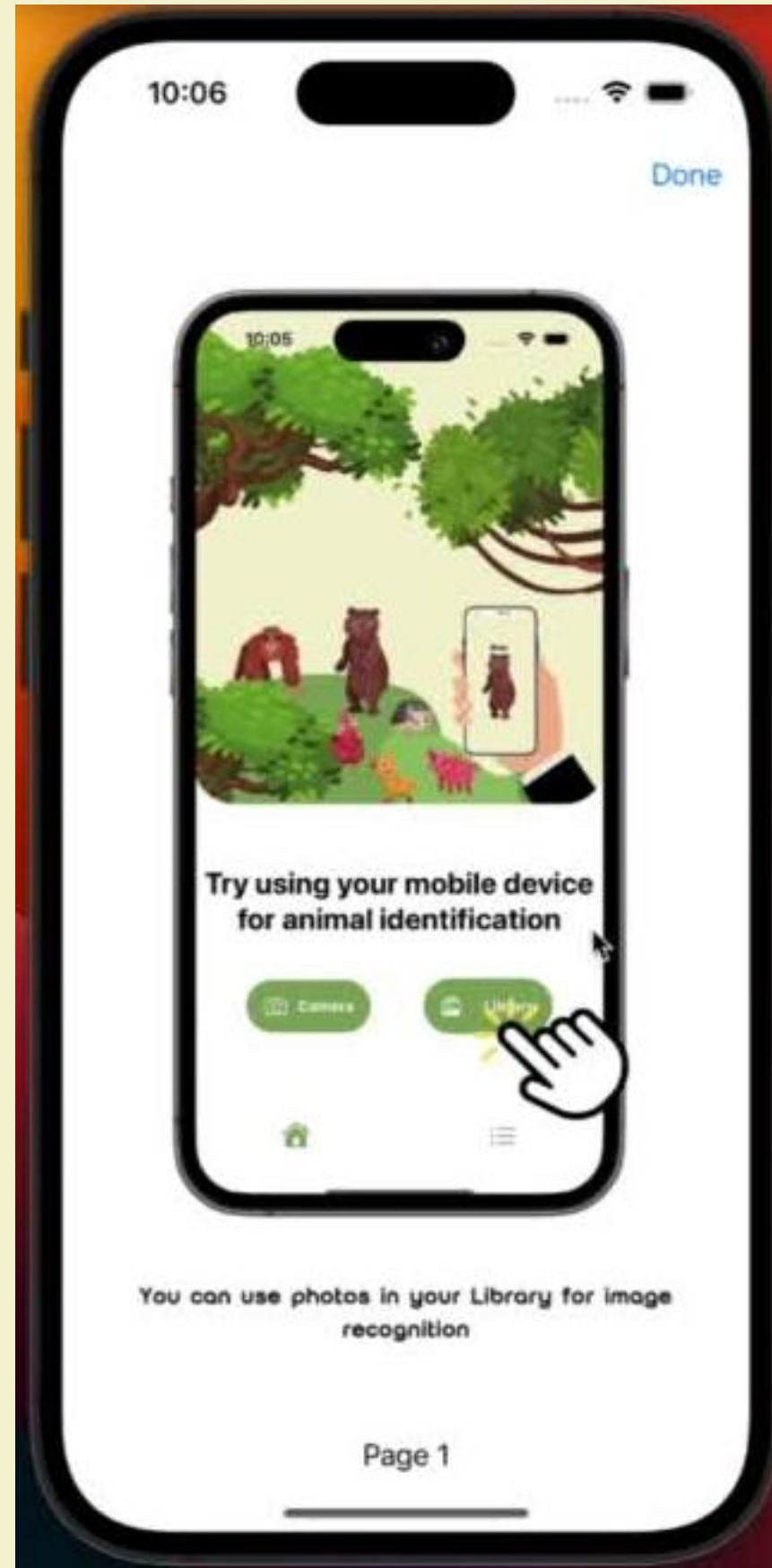
ChatViewModel

- https://www.youtube.com/watch?v=9DjbQpbQVFo&t=777s&ab_channel=iOSAcademy

ARViewModel

- <https://sketchfab.com/feed>
- <https://github.com/maxxfrazer/FocusEntity>
- <https://www.patreon.com/posts/60599655>

Demo



THANK
YOU

