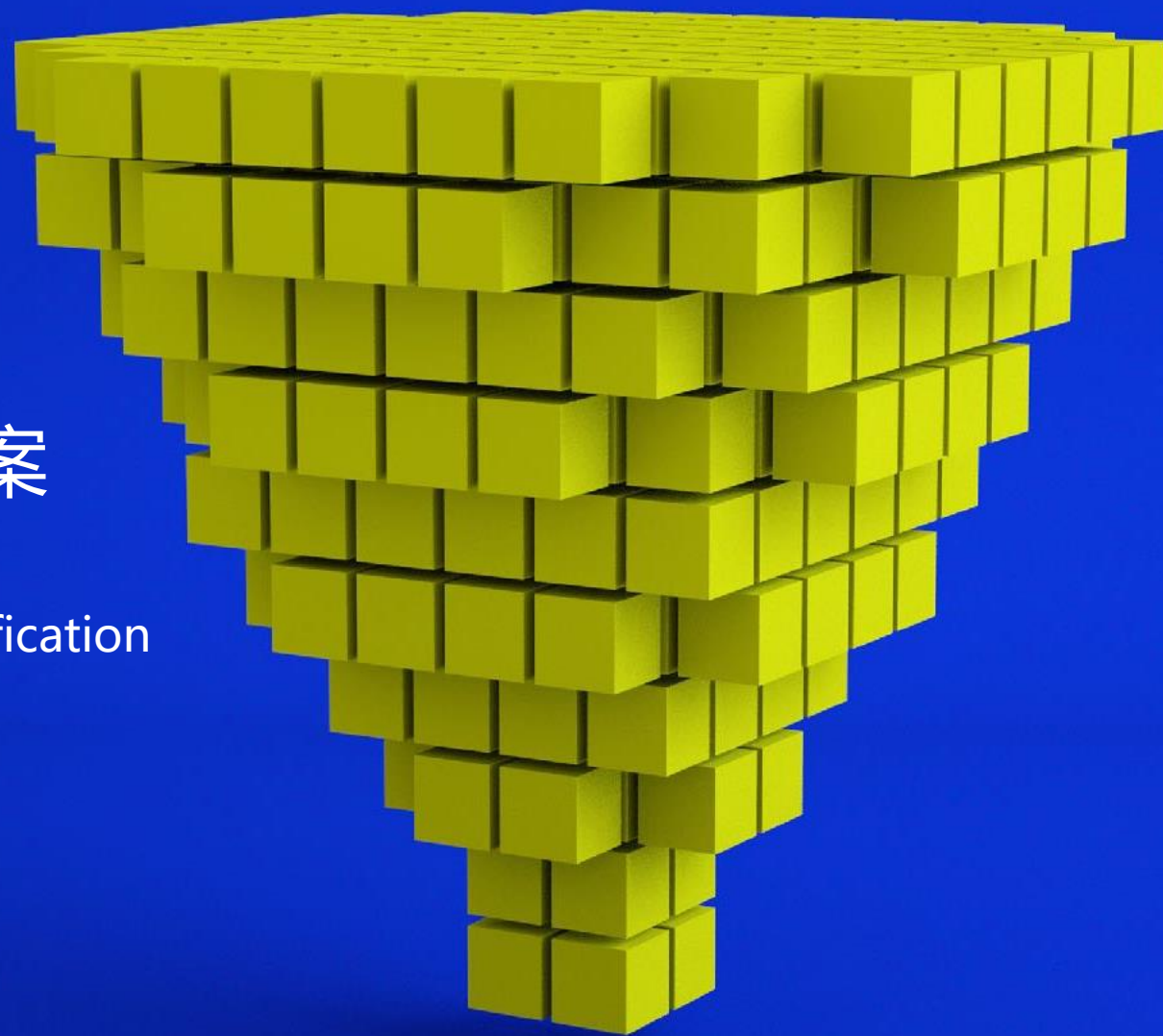


# “码”上野保

## —— 野保识别的物联众包解决方案

Crowdsourcing for Animal Protection

—— IoT Crowdsourcing Solution of Wildlife Identification



项目出发点

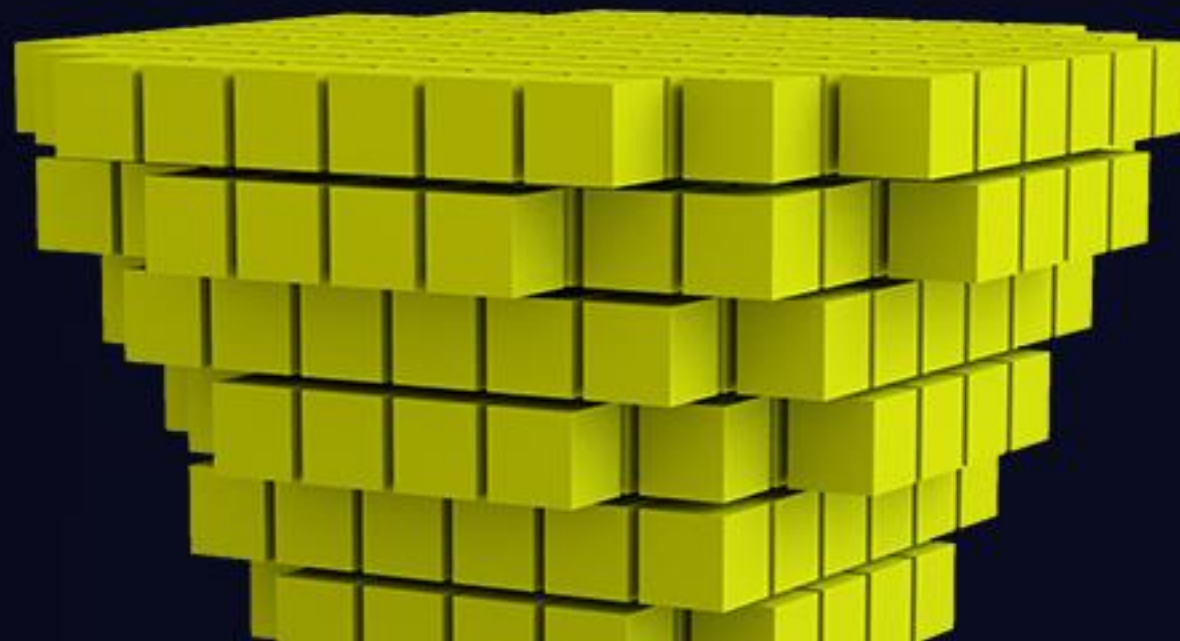
WHY

解决方案

WHAT

吸引与实现

HOW



项目出发点

WHY





## 项目出发点

## Why

## 老河沟自然保护区体验活动

## Old Creek Nature Reserve Experience Activity



监控：每1平方公里1个红外相机  
识别：人工打标  
公众参与：缺失



Monitoring: 1 infrared camera per 1 square kilometer  
Identification: manual marking  
Public participation: low



## 项目出发点

### Why

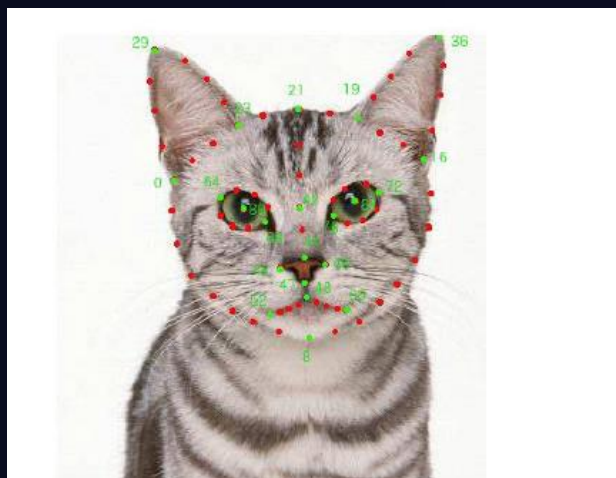
IoT可以做什么?

What can IoT do?



触发拍照上传

Infrared trigger photo upload



图像识别算法改进

Image recognition  
algorithm improvement



增加公众参与度

Increase public participation



## 项目出发点

### Why

人眼看图中的动物其实是很好识别的，但是计算机却很难做到

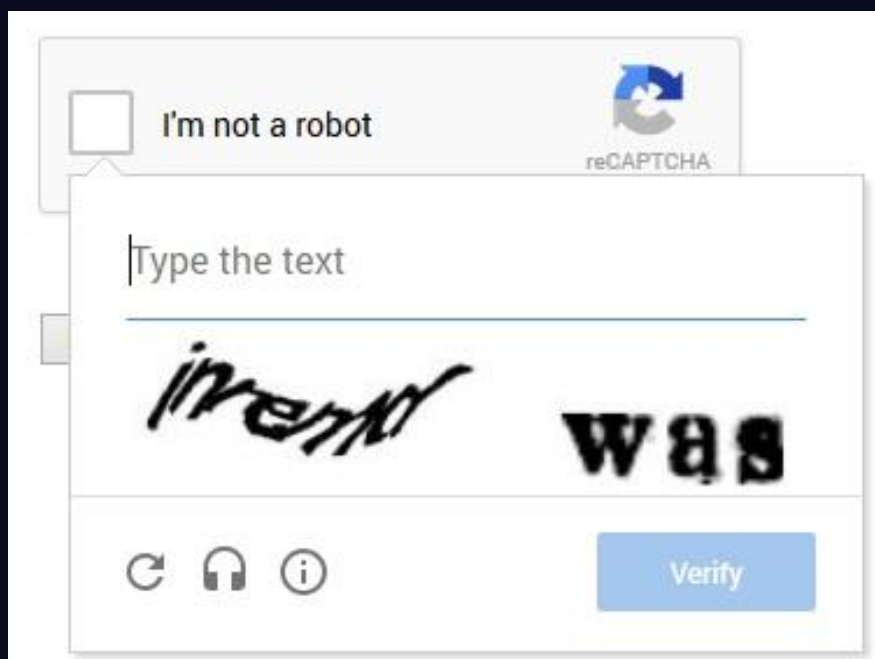
Humans are easy to identify, but computers are currently difficult to do.



## 众包的力量

## The power of crowdsourcing

reCAPTCHA



**2亿次** 每天

**200 million** times a day

**250万本** 每年

**2.5 million books** per year



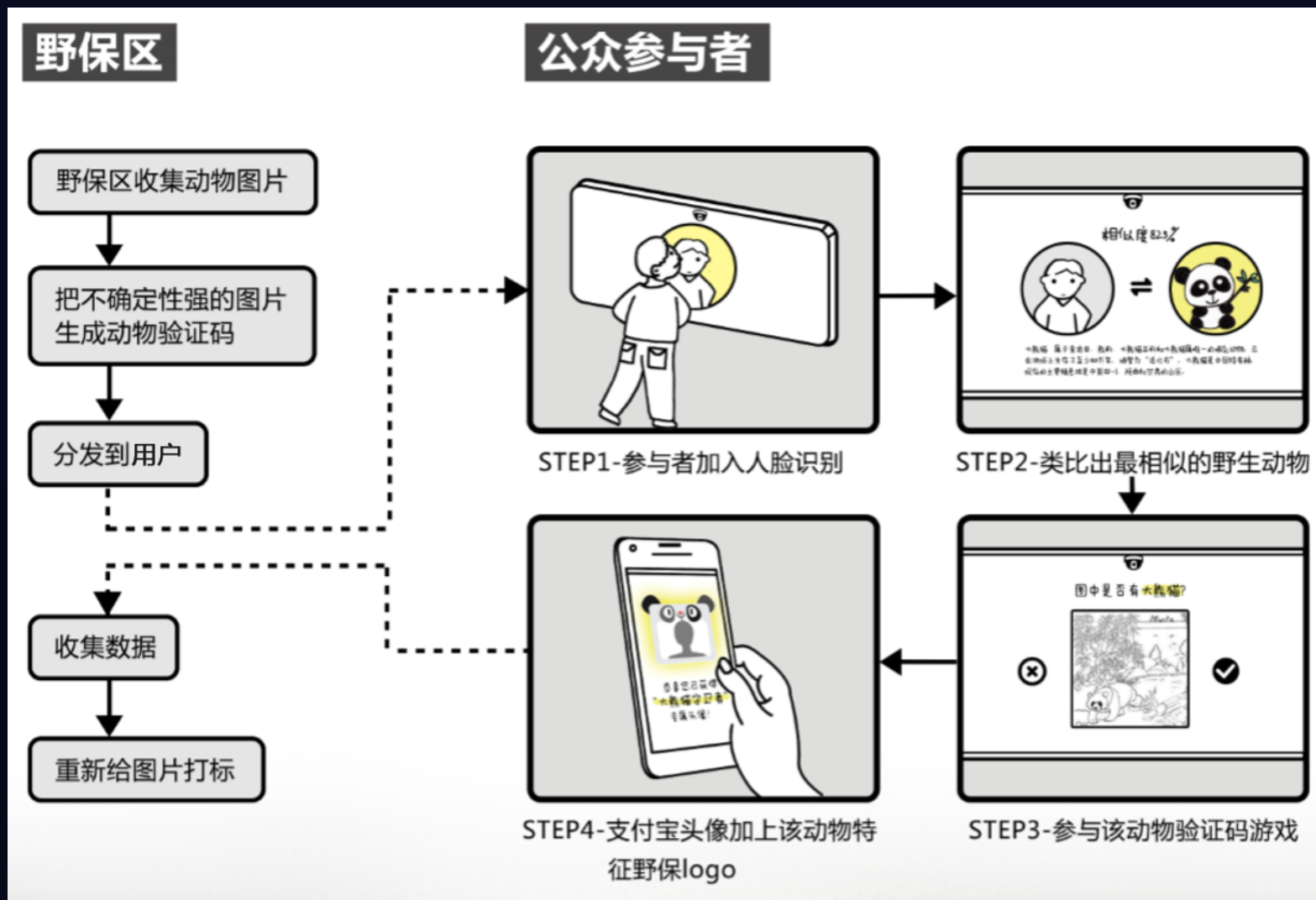
# 解决方案 Solution

## WHAT





## 解决方案 Solution



### “码”上野保:

- 让大众参与识别不确定照片, 增加参与感
- 缓解处理大量照片的工作
- 提高算法的准确性

### Crowdsourcing for animal protection:

- Let the public identify uncertain photos and increase participation
- Relieve the workload of processing large numbers of photos
- Improve the accuracy of the algorithm

# 吸引与实现

## HOW



## 如何吸引

### How

利用用户的自我专属感和对野保的新奇感。

Use the sense of self-ownership and the novelty of the wild.



支付宝弹出  
Alipay advertising



屏幕广告二维码  
QR code for screen ads

## 如何吸引

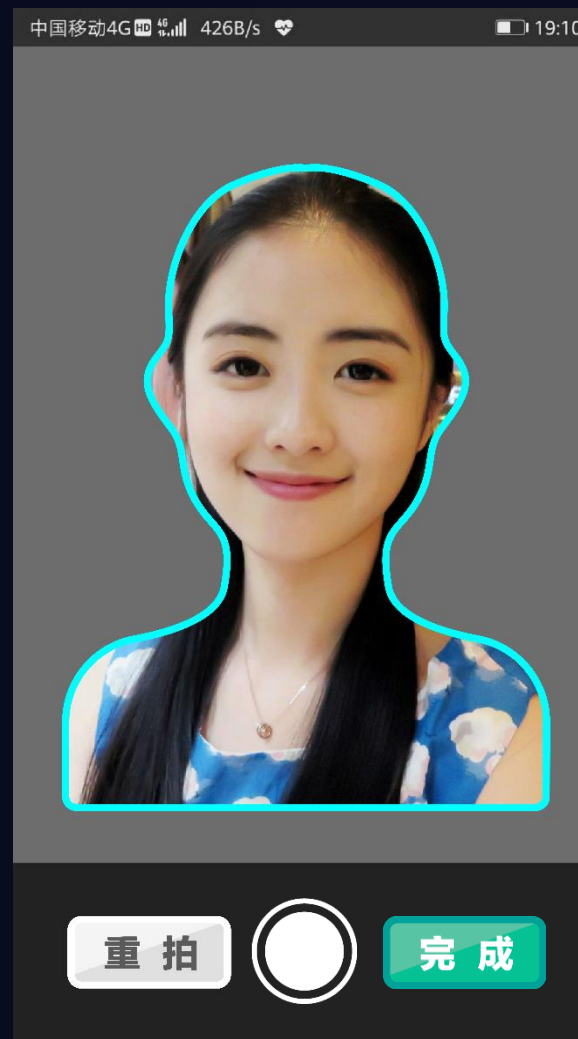
## How

抓住用户的自我专属感和对野保的新奇感。

Use the sense of self-ownership and the novelty of the wild.



剧情动画  
Story animation



人脸识别和动物匹配  
Face recognition and animal matching





## 如何吸引

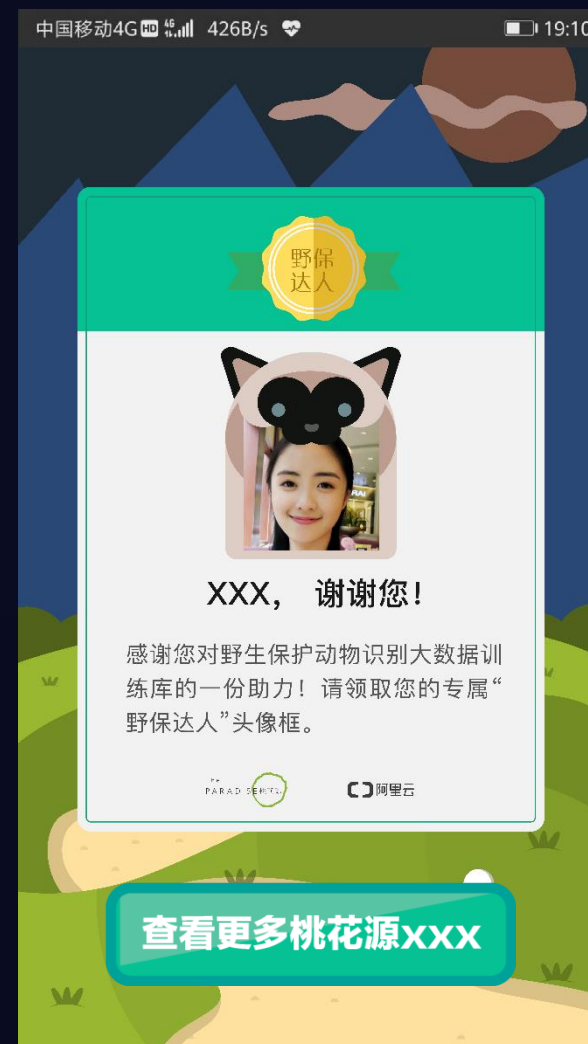
## How

抓住用户的自我专属感和对野保的新奇感。

Use the sense of self-ownership and the novelty of the wild.



验证页面  
Verification page



专属头像获得  
Exclusive avatar

## 如何实现 HOW

硬件  
Hardware  
红外相机装置  
Infrared camera device



ARM微型电脑 (树莓派)  
raspberry pie

+



红外感应  
PIR

+



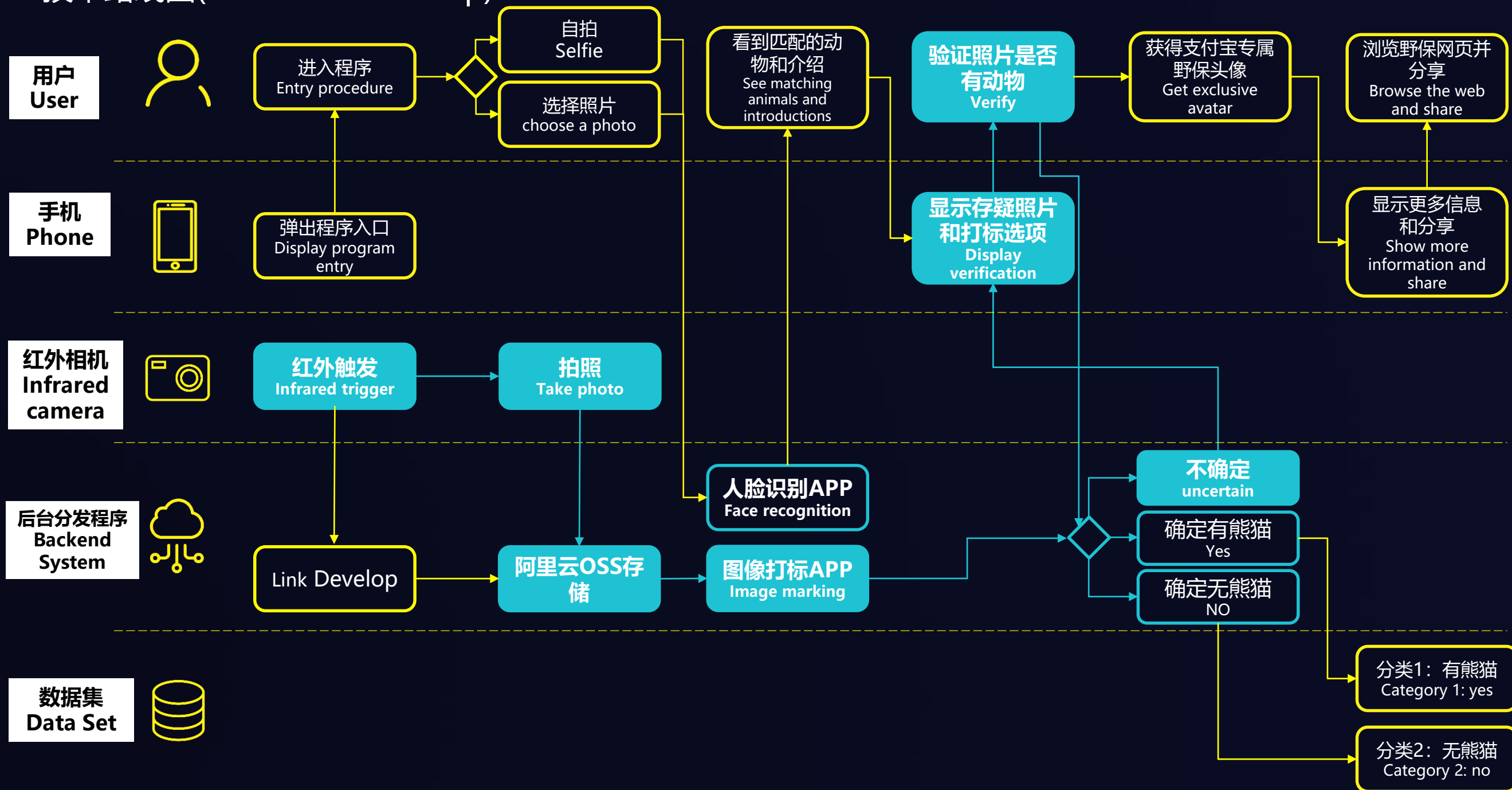
摄像头附件  
camera

=



## 如何实现(HOW)

技术路线图(Technical roadmap) :



## 如何实现 HOW

人脸识别APP和图像打标APP:

Face recognition APP and image marking APP:

### Django Project

#### 人脸识别APP Face recognition APP

1. 获取用户上传的人脸图像
  2. 对用户上传的人脸图像进行分析, 并且匹配符合其脸型的动物照片
1. Get user-uploaded face images
  2. Analyze the face image uploaded by the user to match the face similar animal

#### 图像打标APP Image marking APP

1. 随机获取一张需要用户辅助参与的打标图像
  2. 将用户打标的结果备份至数据库, 便于后期的云OSS进行分类
1. Randomly get an uncertain marking image
  2. The result of the user marking is saved in the current database to ensure the classification of the cloud OSS data in the later stage.



# 价值体现

## The embodiment of value

提高公共参与度

Increase public participation

提升算法准确度

Improve algorithm accuracy

引流用户至线上

Drain to online users

众包可以积水成海，希望这个“小而美”的野保验证码  
可以吸引更多的新人“码”上野保

Crowdsourcing can accumulate water into the sea, hope  
that this "small and beautiful" wild insurance verification  
code can attract more new people.

# THANKS

## Q&A



