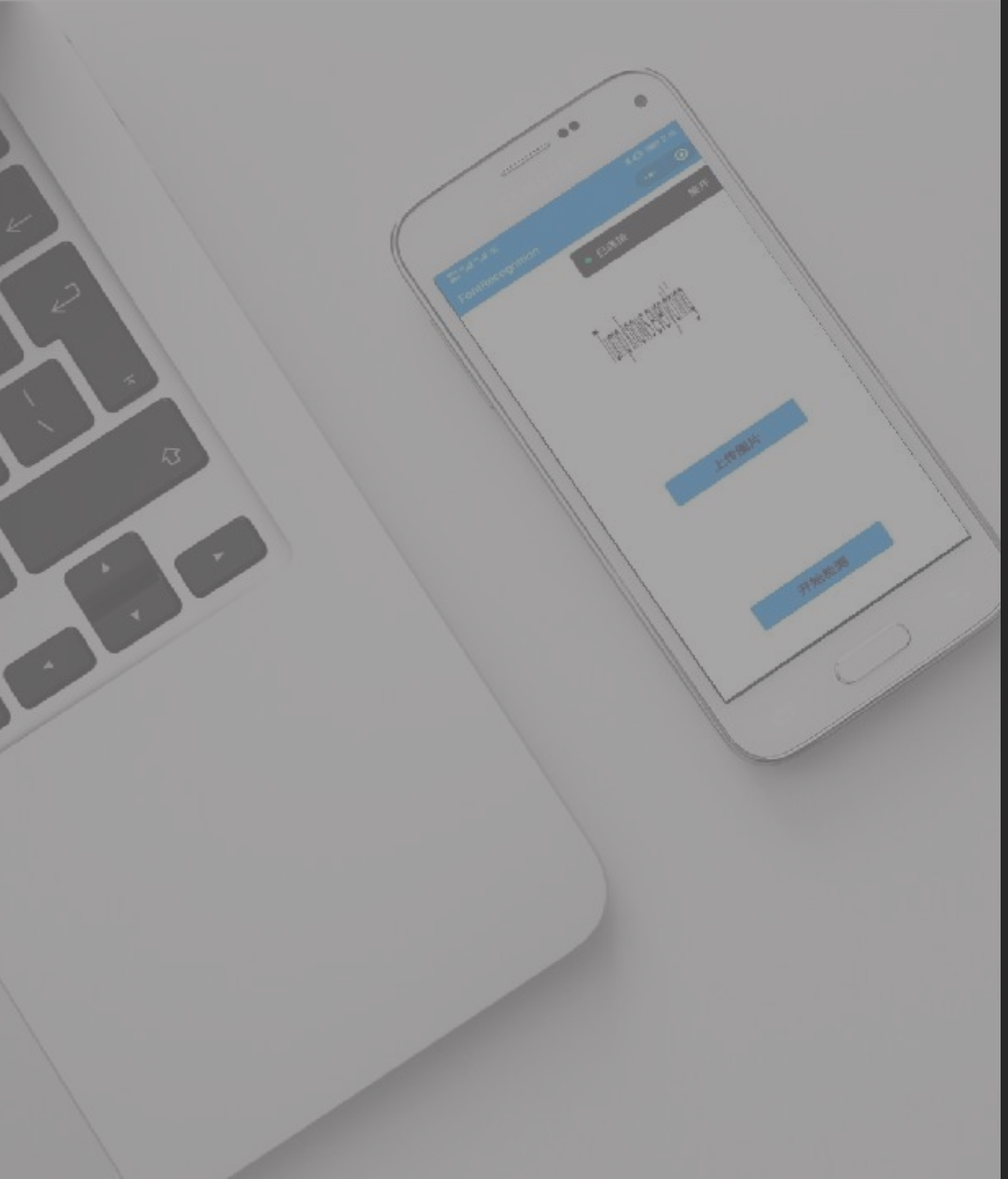
FontRecognition

Identify Your Font from An Image

Tan Xiao



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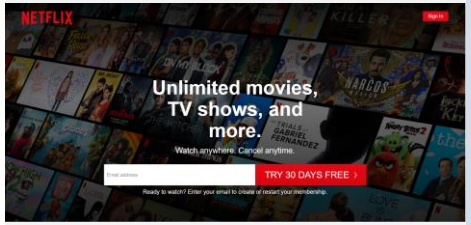
01

PART ONE

Background

Some Demands & Existing schemes

graphic designers / we-media workers / others



Existing schemes

- What's Font
- Findmyfont

RESTAURANT
RESTAURANT
Electrical
Electrical

Why English Font

禮義廉恥，國之四維

台大楷书

禮義廉恥，國之四維

02

PART TWO

Introduction

DeepFont

Use AdobeVFR data set

A large-scale visual font recognition data set

Too big to use

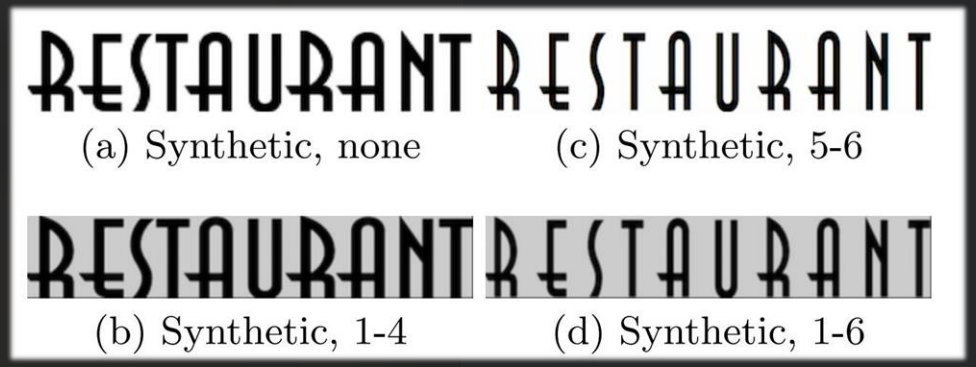
Must create custom dataset

Font Recognition

Preprocessing Training Identification

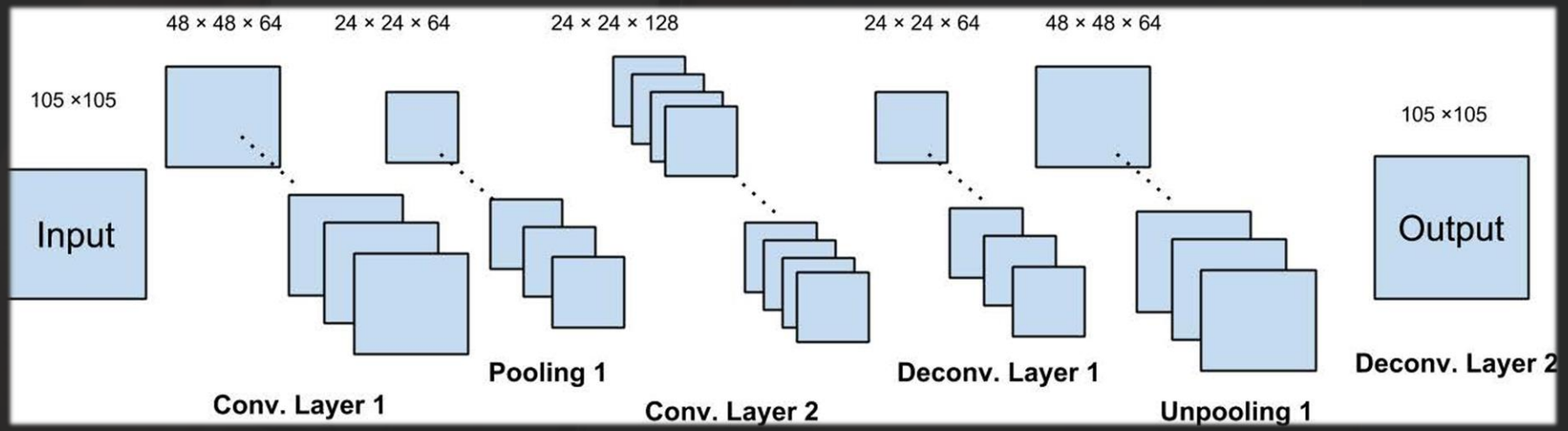
create our own data set consists of 5 kinds of fonts, each with 400 compositing images

Noise: a small Gaussian noise with zero mean and standard deviation
Blur: a random Gaussian blur with standard deviation from 2.5 to 3.5
Perspective Rotation: a randomly-parameterized affine transformation
Shading: the input background is filled with a gradient in illumination



DeepFont

Preprocessing Training Identification

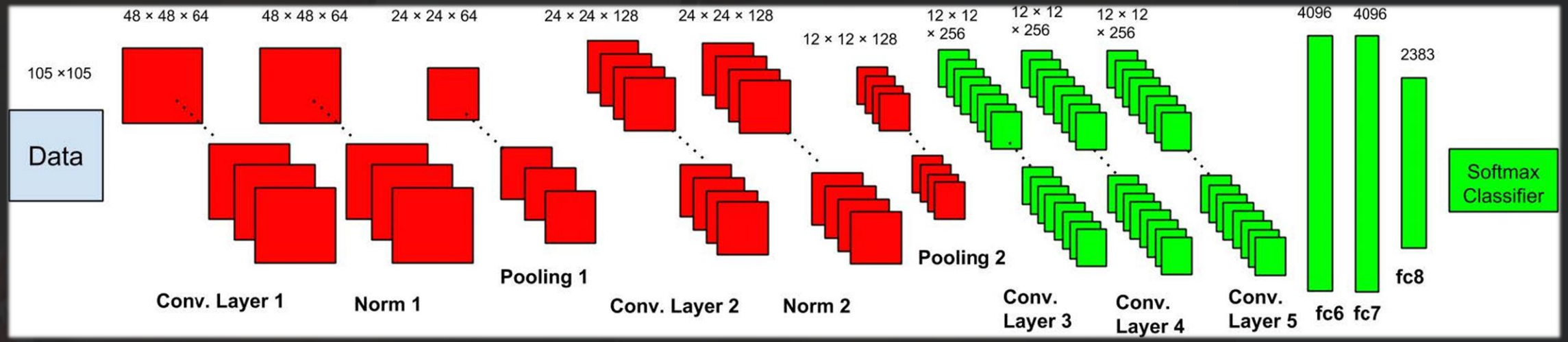


DeepFont

Preprocessing

Training

Identification



DeepFont

Preprocessing

Training

Identification

45%

testing

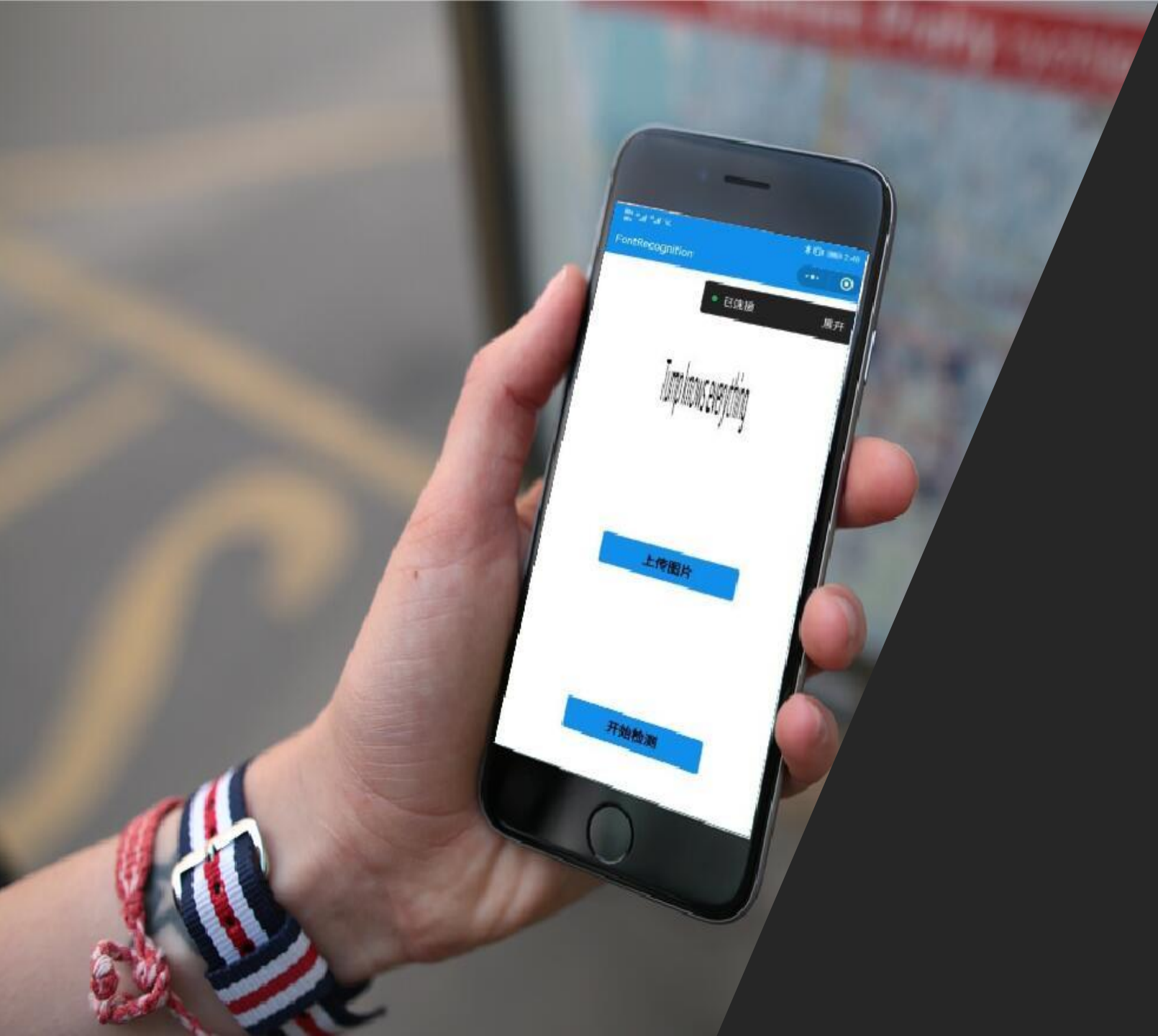
Initial accuracy

Manually create the data set

95%

testing

Accuray after optimization



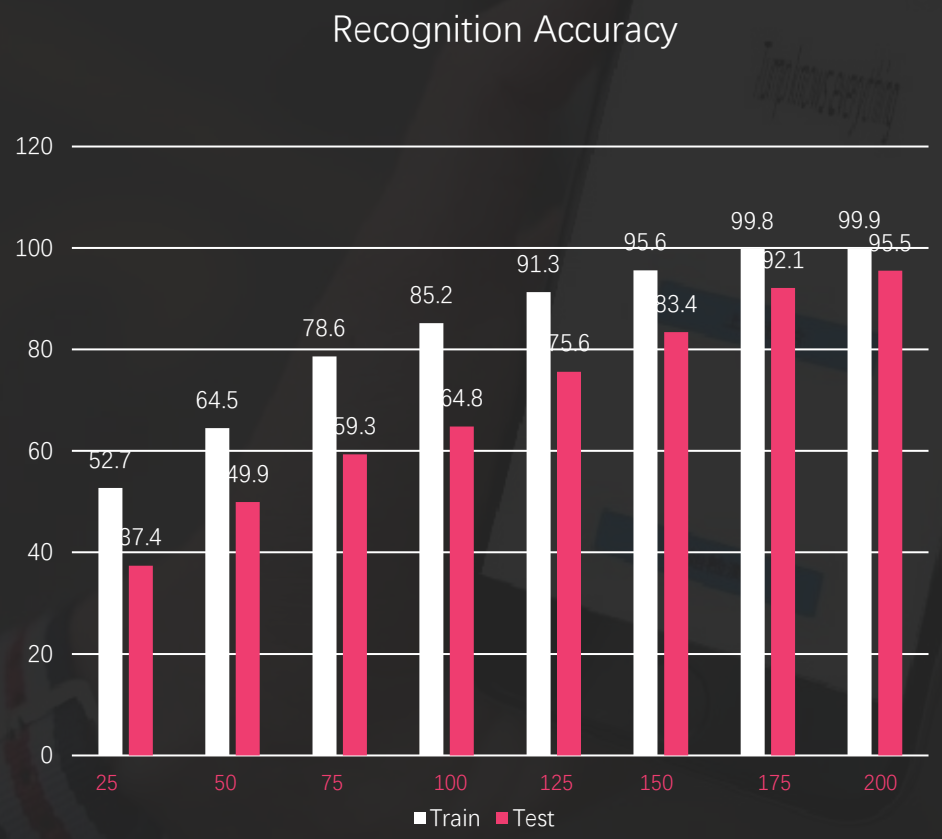
03

PART THREE

Results

Recognition Accuracy

On the basis of this network structure, the image font recognition accuracy increases with the increase of training times, as shown in the Table

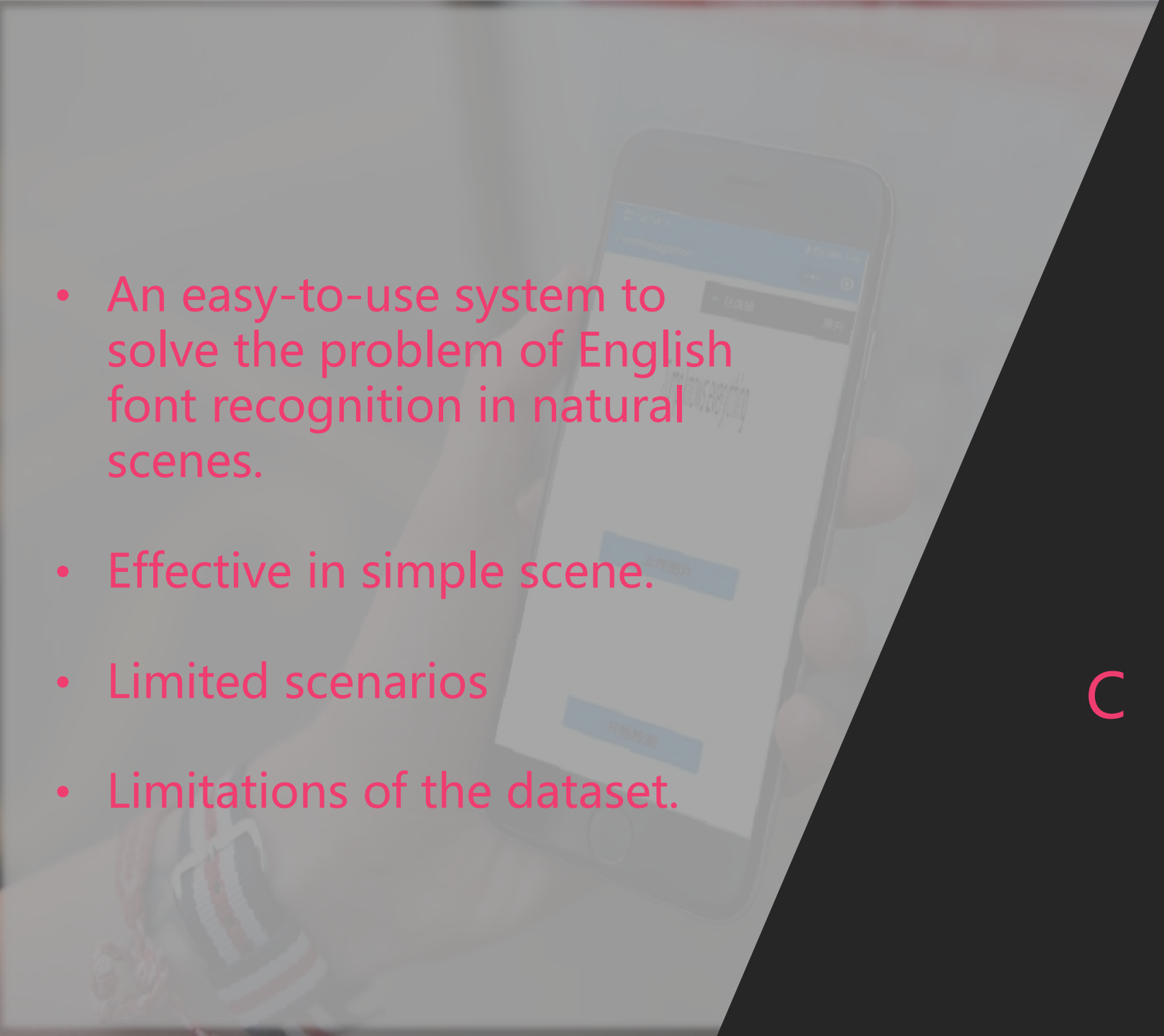


RECOGNITION ACCURACY

Epochs	Train	Test
25	52.7%	37.4%
50	64.5%	51.9%
75	78.6%	59.3%
100	85.2%	64.8%
125	91.3%	75.6%
150	95.6%	83.4%
175	99.8%	92.1%
200	99.9%	95.5%

Tump knows everything	Raleway
Tump knows everything	Raleway
Tump knows everything	Roboto
Tump knows everything	Roboto
Tump knows everything	Sansation
Tump knows everything	Sansation
Tump knows everything	Walkway
Tump knows everything	Walkway

D e m o



- An easy-to-use system to solve the problem of English font recognition in natural scenes.
- Effective in simple scene.
- Limited scenarios
- Limitations of the dataset.

04

PART FOUR

Conclusion

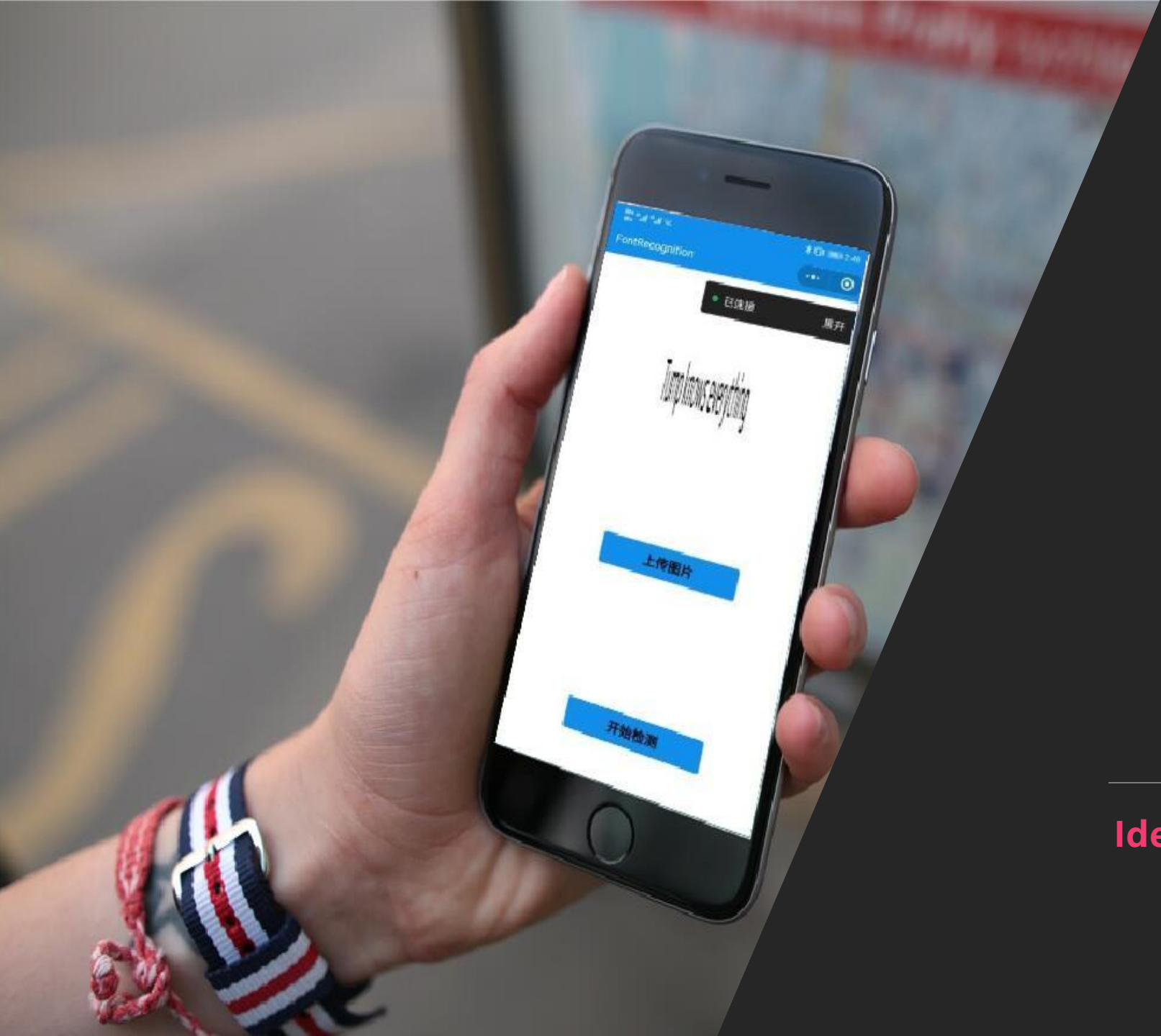
Member Introduction

任务	细化	负责人		
		谈啸	杨成栋	蔡凌云
A核心代码	A训练		YCD	
	A优化		YCD	
	A测试		YCD	CLY
B前端	B设计	TX		
	B编写	TX		
	B优化	TX		
D报告	D背景			CLY
	D算法			CLY
	D前端	TX		
	D结论		YCD	CLY
	PPT			CLY
	答辩	TX		

Tan Xiao

Yang Chengdong

Cai Lingyun



Thanks

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