

FontRecognition

Identify Your Font from An Image

Tan Xiao



C O N T E N T S

01 B a c k g r o u n d

02 I n t r o d u c t i o n

03 R e s u l t s

04 C o n c l u s i o n



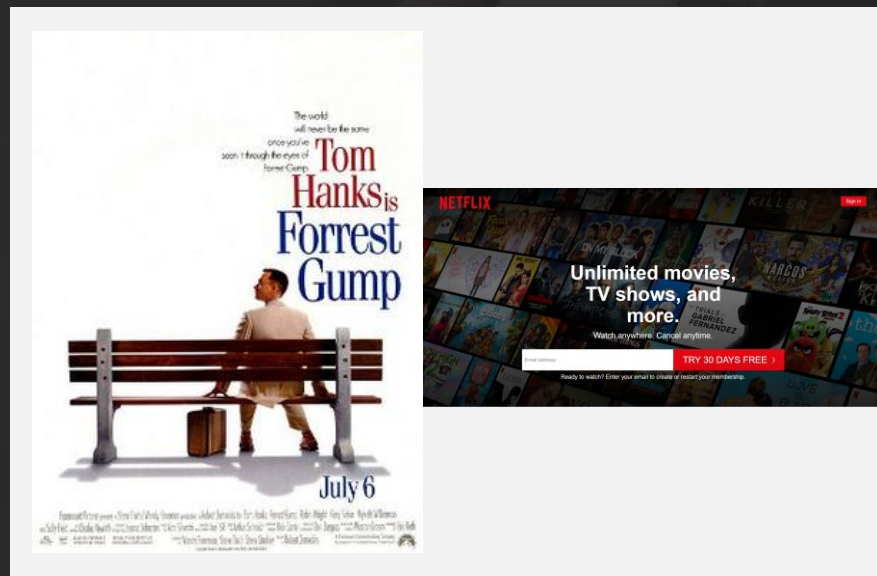
01

PART ONE

B a c k g r o u n d

Some Demands & Existing schemes

graphic designers / we-media workers / others



Existing schemes

- What's Font
- Findmyfont

RESTAURANT **Electrical**
RESTAURANT **Electrical**

Why English Font

禮義廉恥，國之四維

■ 台大楷書

禮義廉恥，國之四維



02

PART TWO

Introduction

Font Recognition



Preprocessing



Training



Identification

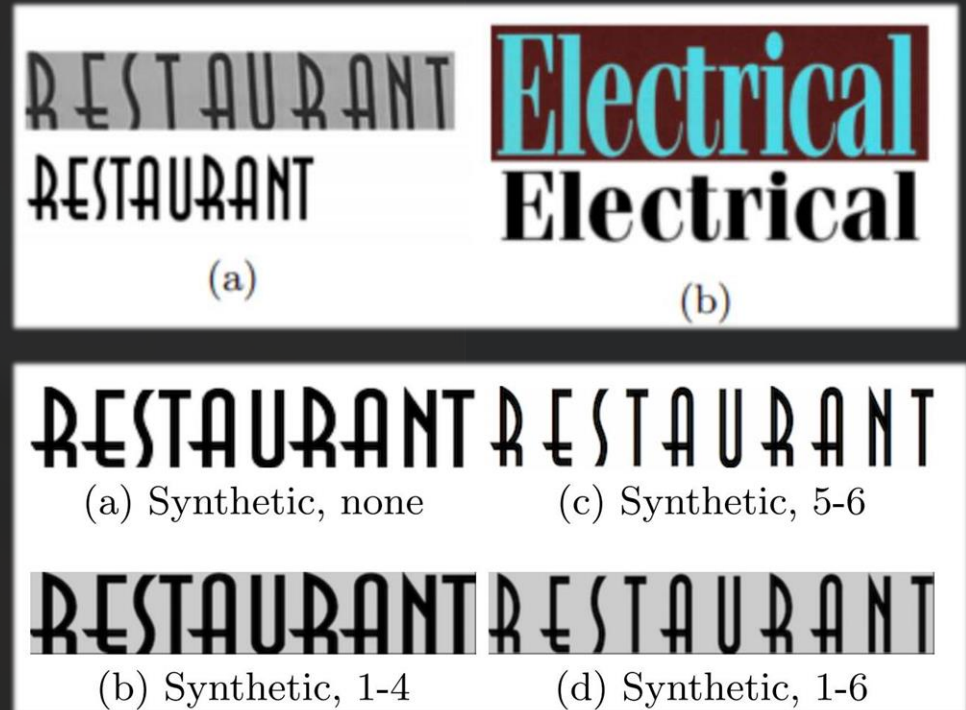
create our own data set consists of 5 kinds of fonts, each with 400 compositing images

Noise: a small Gaussian noise with zero mean and standard deviation

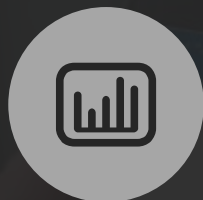
Blur: a random Gaussian blur with standard deviation from 2.5 to 3.5

Perspective Rotation: a randomly-parameterized affine transformation

Shading: the input background is filled with a gradient in illumination



DeepFont



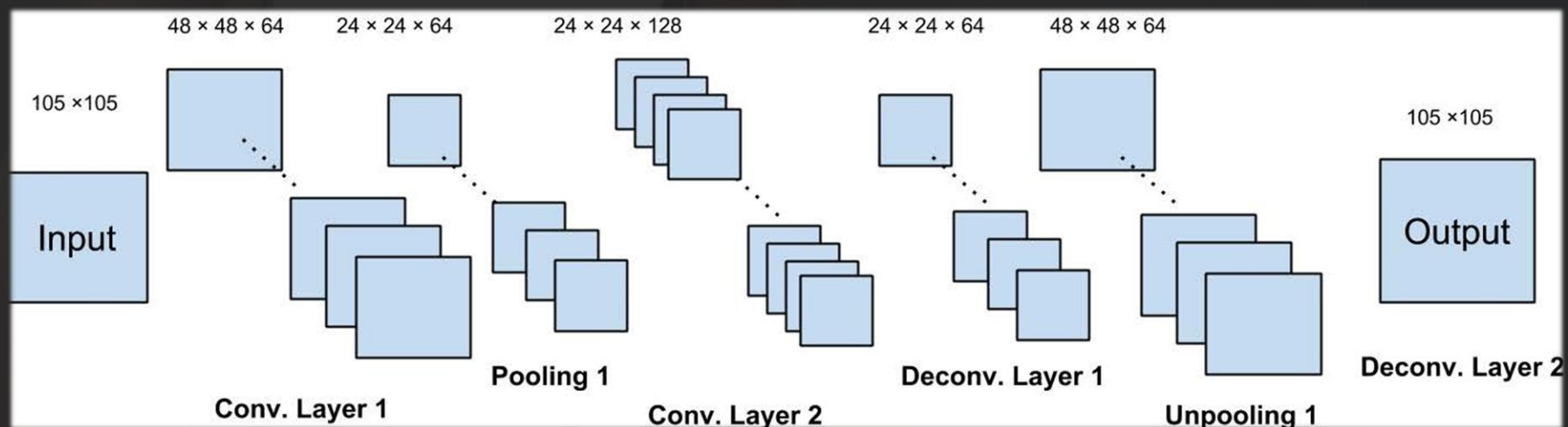
Preprocessing



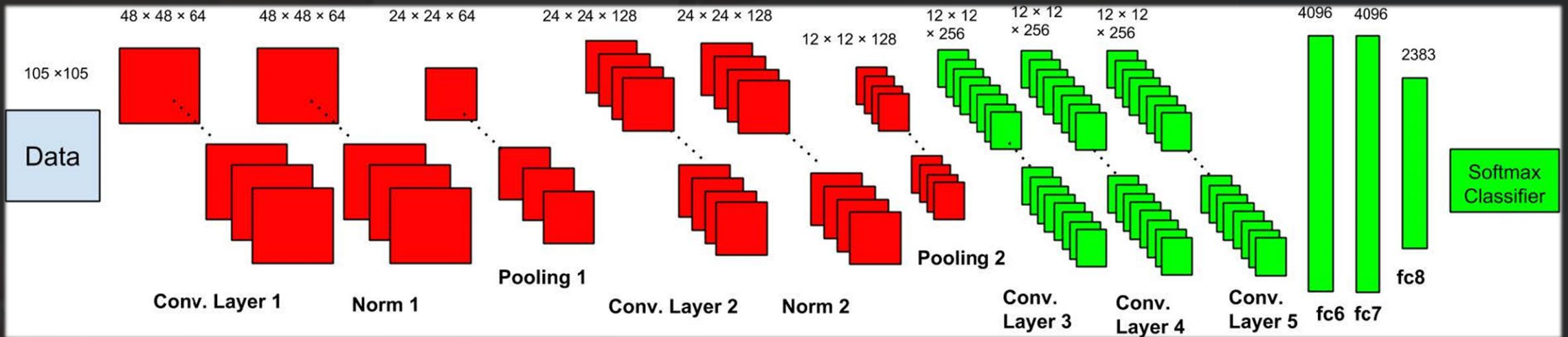
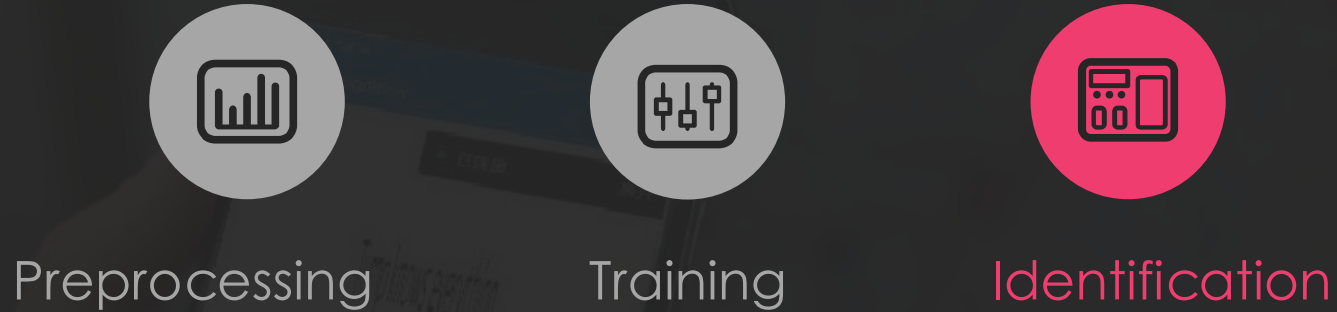
Training



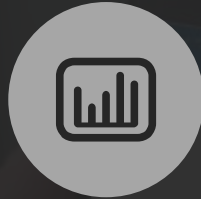
Identification



DeepFont



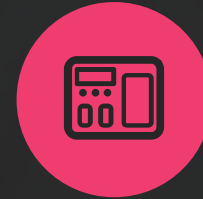
DeepFont



Preprocessing



Training



Identification

45%

testing

Initial accuracy

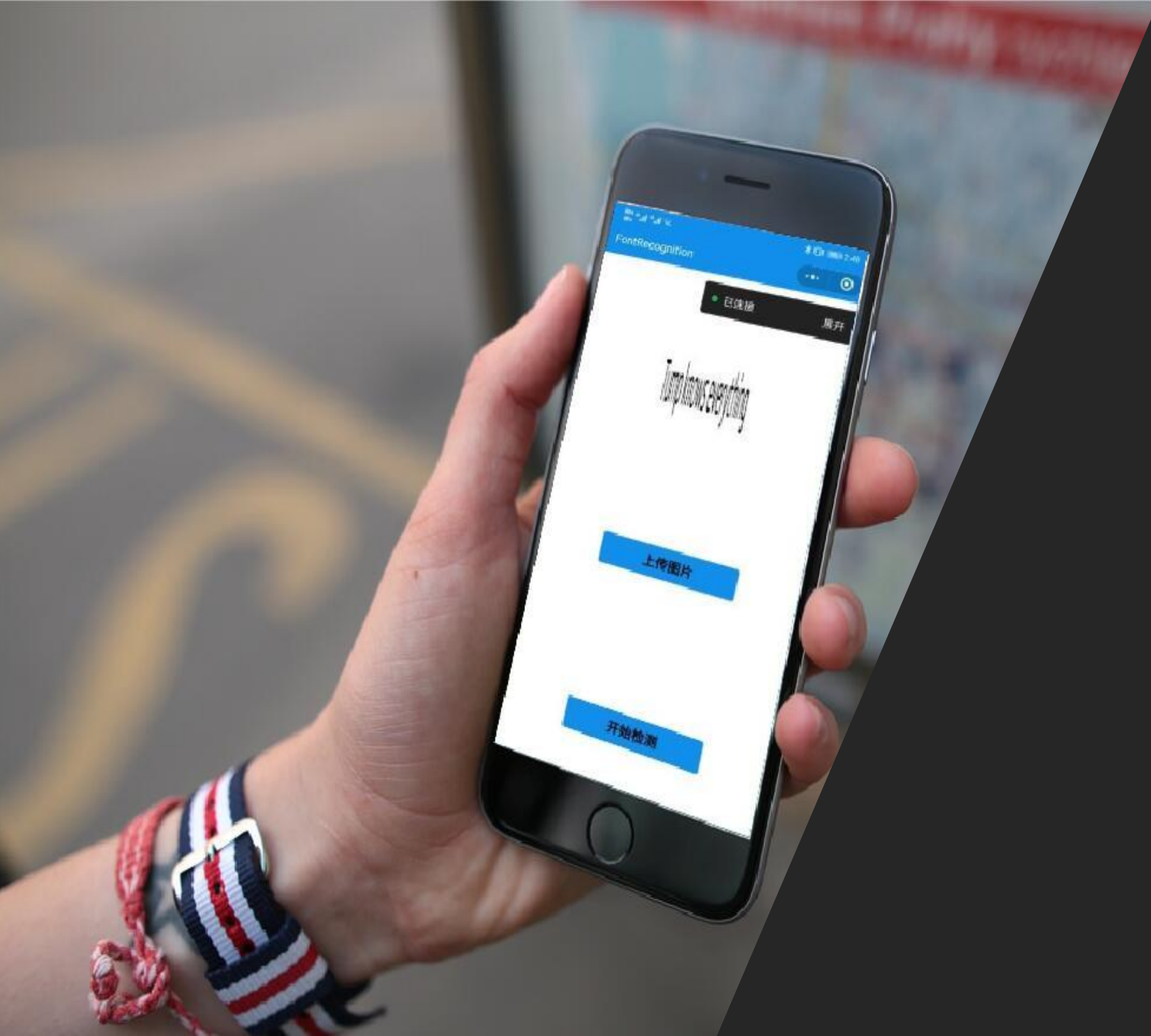
Manually create the data set

Trump knows anything Tka_40	Trump knows anything Tka_56	Trump knows anything Tka_79	Trump knows anything Tka_106
Trump knows anything Tka_152	Trump knows anything Tka_215	Trump knows anything Tka_298	Trump knows anything Tka_406
Trump knows anything Tka_452	Trump knows anything Tka_538	Trump knows anything Tka_690	Trump knows anything Tka_779
Trump knows anything Tka_824	Trump knows anything Tka_828	Trump knows anything Tka_947	Tump knows everything Tke_161
Tump knows everything Tke_176	Tump knows everything Tke_180	Tump knows everything Tke_252	Tump knows everything Tke_335
Tump knows everything Tke_375	Tump knows everything Tke_418	Tump knows everything Tke_421	Tump knows everything Tke_434
Tump knows everything Tke_448	Tump knows everything Tke_464	Tump knows everything Tke_530	Tump knows everything Tke_743
Tump knows everything Tke_770	Tump knows everything Tke_787	Trump knows anything Tke_848	Tump knows everything Tke_852
Tump knows everything Tke_853	Tump knows everything Tke_866	Tump knows everything Tke_919	Tump knows everything Tke_925

95%

testing

Accuracy after
optimization



03

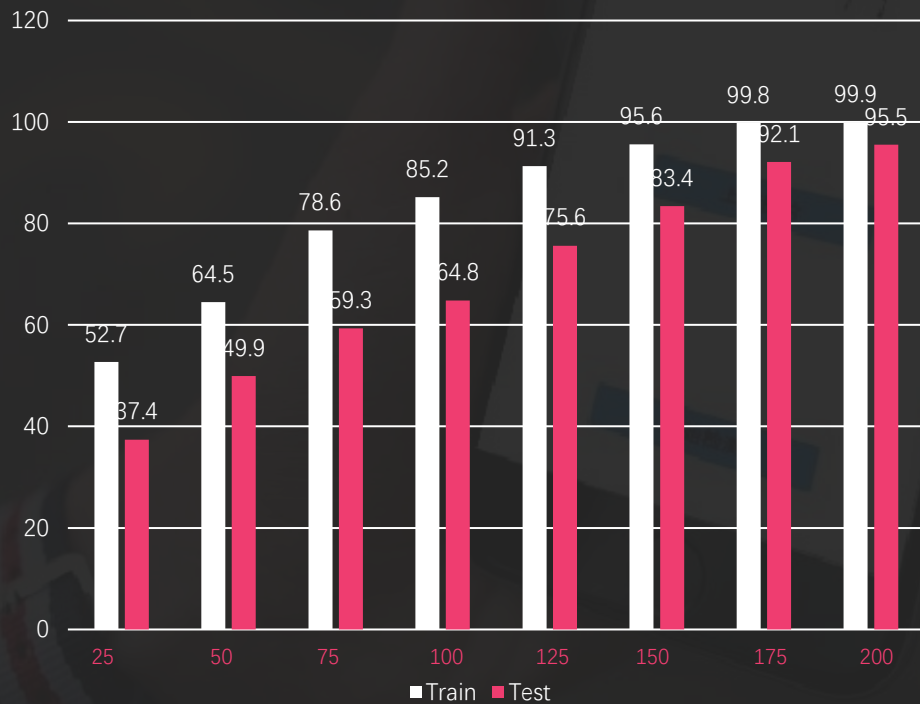
PART THREE

R e s u l t s

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



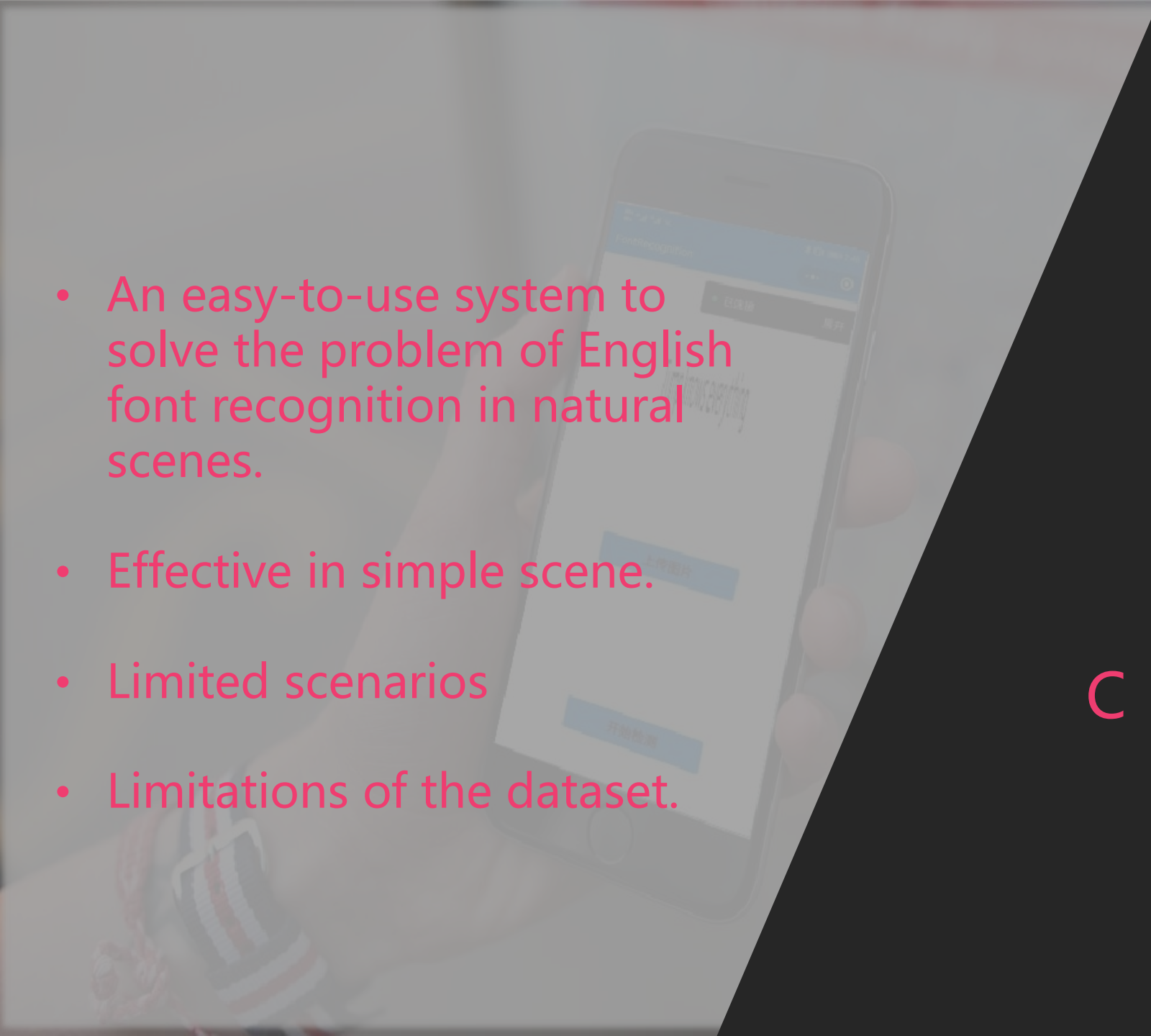
RECOGNITION ACCURACY

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

C o n c l u s i o n

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		



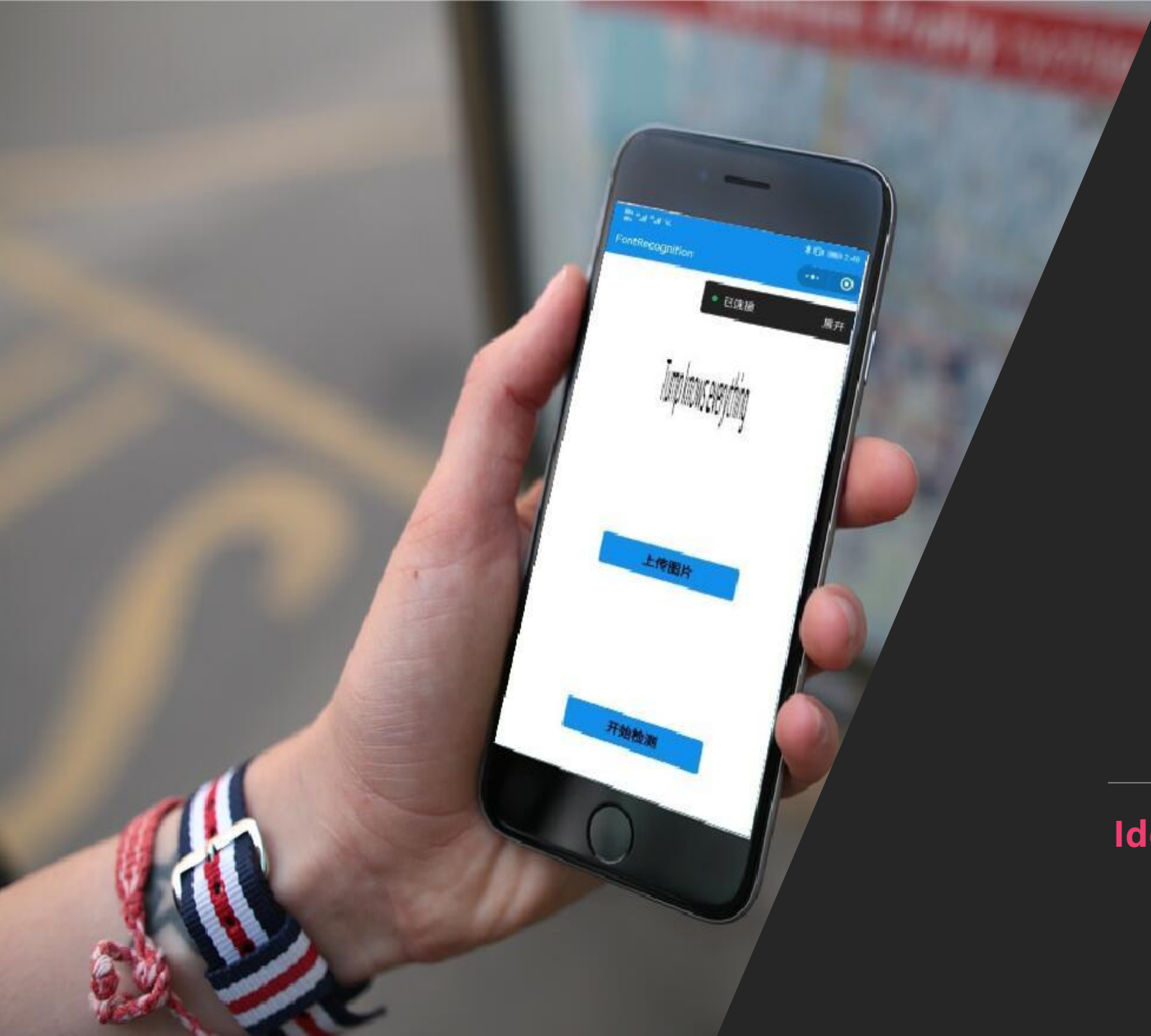
Tan
Xiao



Yang
Chengdong



Cai
Lingyun



Thanks

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