

# My Resume



Mobile			Cross-Platform			Mini Program	Backend	Frontend	AI	Desl
Android	iOS	HarmonyOS	Flutter	React Native	KMP	Mini Program	Java	Web	AI	WinF



## Contact Information

Phone: 15201120927

Email: [developer\\_zxc@126.com](mailto:developer_zxc@126.com)

QQ: 834228918

## Basic Information

Personal Information: PGzxc/Male

Graduated From: Huanghuai University | Full-time Bachelor's Degree | Electronic Information Engineering (2009.09–2013.06)

Work Experience: June 2013 – Present

Current Residence: Changping Line/Changping Station (Changping County)

## Job Intentions

Employment Type: Full-time

Expected Salary: Negotiable

Work Location: Beijing

Expected Position : Mobile Development (HarmonyOS / Android / iOS), Cross-platform Development (Flutter / React Native / KMP), Backend Development (Java), Web Frontend Development, Mini Program Development (WeChat Mini Program / uni-app), Desktop Development (WinForm), etc.

## Related Information

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Website: <https://pgzxc.github.io/>

↑ 0%  
GitHub: <https://github.com/PGzxc/>

CSDN Blog: [http://blog.csdn.net/calvin\\_zhou](http://blog.csdn.net/calvin_zhou)

## Education Background

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2009/9 to 2013/6 Huanghuai University Electronic Information Engineering Full-time Bachelor's Degree

## Work Experience

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2013/06 – 2014/06	Quanta Shanghai Manufacturing City	Test
Assistant Engineer		
2015/04 – 2015/10	LeYiKao (Beijing) Education Technology Co., Ltd.	Android
Development Engineer		
2015/10 – 2016/07	Time Zhe Internet Technology (Beijing) Co., Ltd.	Android
Development Engineer		
2016/07 – 2018/06	Tibet Yuanyu (Beijing) Network Technology Co., Ltd.	Android
Development Engineer		
2018/07 – 2022/04	China Aerospace Science and Technology (Beijing) Co., Ltd.	Full
Stack Engineer		
2022/06 – 2024/12	BeiSi ChangXiang Technology Co., Ltd.	Full Stack Engineer

## Company and Work Experience

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**2022/06 – 2024/12 BeiSi ChangXiang Technology Co., Ltd. Full Stack Development Engineer**

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## Company Profile

Industry Category : Technology Promotion and Application Services | Enterprise Nature : Limited Liability Company (Solely Invested by Legal Person) | Scale: Less than 100 people

Company Introduction : BeiSi ChangXiang Technology Co., Ltd., headquartered in the CCID

Industrial Park, Changping District, Beijing. It was jointly initiated and founded by multiple serial entrepreneurs with years of entrepreneurial experience in different industries and fields. It is a platform focused on sharing entrepreneurial knowledge, dedicated to providing entrepreneurs with essential knowledge and high-quality entrepreneurial projects, enabling entrepreneurs to have a new understanding of entrepreneurship. It provides paid services such as project special issue production, project information push, and business plan writing for entrepreneurs, and truly creates income through implementable and executable entrepreneurial projects, making it easier to realize entrepreneurial dreams.

## Job Description:

Responsible for the Android mobile terminal development of the football live broadcast league "La Liga+" signed between the company and Liuxian Media Technology (Beijing) Co., Ltd.

Responsible for product requirement analysis, functional development, performance optimization, packaging release and version iteration

Cooperate with product managers and testers to ensure product quality and on-time launch

Continuously optimize and improve client products based on user feedback

## Project Introduction

### 1-La Liga+ (Football Live Broadcast League)

**Project Description :** La Liga+ is a professional football league live broadcast platform jointly created by BeiSi ChangXiang Technology and Liuxian Media, providing high-quality live broadcast and interactive experience for domestic fans. The project covers functions such as schedule booking, live broadcast viewing, replay review, chat room interaction, screen casting playback, team data, VIP membership system, etc., supporting horizontal and vertical screen switching and message push, meeting users' one-stop experience needs of "watching games + communicating + data".

**Functional Modules:** Home, Schedule, Data, Live Broadcast, Chat Room, My, etc.

**Responsible Modules:** Home, Schedule, Data, Live Broadcast, Chat Room, My, etc.

### Technical Points:

Based on component-based function splitting, divide the project into basic library, component layer and business layer

Rapidly integrate project UI development framework based on basic library XUI

Based on XOrmlite database to save playback records and other data

Implement component-based routing scheme based on XRouter routing framework

Integrate Alipay and WeChat payment based on basic library AndroidPay

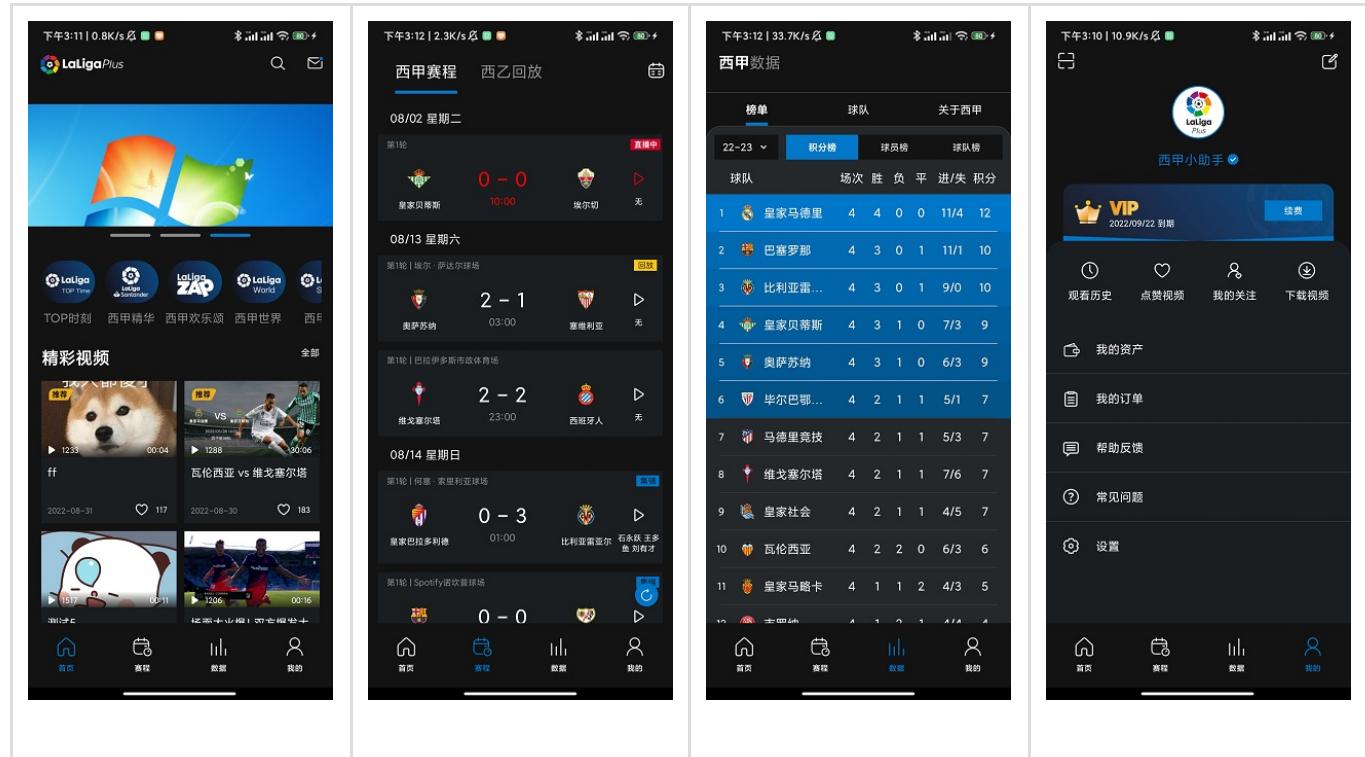
Based on basic library Alibaba Cloud Video SDK to play short video lists, schedule live broadcasts and replays

Build various pop-ups in the application based on XPopup

Build network access framework based on OkHttp+Retrofit

Implement message push and live chat room chat based on Jiguang SDK

## Project Preview



下午3:13 | 19.5K/s

**西甲数据**

榜单 球队 关于西甲

22-23	积分榜	球员榜	球队榜
进攻	1 阿斯帕斯	5	
射门	2 罗伯特·莱万多夫斯基	5	
射正	3 博尔哈·伊格莱西亞斯	4	
出场	4 卡里姆·本泽马	3	
首发	5 维尼修斯	3	
黄牌	6 阿尔瓦罗·莫拉塔	3	
红牌	7 艾玛·奥罗兹	2	
传球	8 伊涅斯·阿雷拉	2	
成功传球	9 何塞卢	2	
抢断	10 亚历杭德罗·巴埃纳	2	
解围	11 赫拉德·莫雷诺	2	

首页 赛程 数据 我的

下午3:13 | 2.6K/s

**西甲数据**

榜单 球队 关于西甲

22-23	积分榜	球员榜	球队榜
进球	球队	总计	
封堵	1 巴塞罗那	11	
黄牌	2 皇家马德里	11	
红牌	3 比利亚雷亚尔	9	
射门	4 维戈塞尔塔	7	
射正	5 皇家贝蒂斯	7	
越位	6 奥萨苏纳	6	
犯规	7 瓦伦西亚	6	
传球	8 马德里竞技	5	
成功传球	9 毕尔巴鄂竞技	5	
抢断	10 吉罗纳	4	
解围	11 皇家马略卡	4	

首页 赛程 数据 我的

下午3:14 | 497K/s

**赛程日历**

2022年9月

日	一	二	三	四	五	六
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

00:30 比利亚雷亚尔 VS 埃尔切  
00:30 布尔戈斯 VS 卡塔赫纳  
00:30 韦斯卡 VS 伊维萨体育联盟  
03:00 萨拉戈萨 VS 卢戈  
03:00 瓦伦西亚 VS 赫塔菲

评论 (11) 接热度排序 | 按时间排序

西甲小助手 11  
4小时前  
西甲小助手 22  
聊聊这场比赛吧...

下午3:12 | 0.5K/s

**西甲数据**

榜单 球队 关于西甲

**LaLiga Santander**  
西班牙足球甲级联赛

中文简称	西甲
英文名称	LaLiga Santander
主办机构	西班牙职业足球联赛
所属联盟	欧洲足球协会联盟
成立日期	1929年
赛制	联赛
球队数目	20队
当前球员数目	515

首页 赛程 数据 我的

下午3:12 | 7.2K/s

**西甲数据**

榜单 球队 关于西甲

巴塞罗那	毕尔巴鄂竞技	皇家贝蒂斯
赫塔菲	皇家马德里	西班牙人
皇家社会	马德里竞技	皇家巴拉多利德
加的斯	埃尔切	瓦伦西亚
皇家马略卡	维戈塞尔塔	塞维利亚

首页 赛程 数据 我的

下午3:14 | 23.1K/s

**西甲数据**

聊天 赛况 阵容 数据

重试

系统提示：西甲+互动评论内容须严格遵守评论规范，严禁传播违法违规、低俗血腥、吸烟酗酒、造谣传谣等不良有害信息。如有违反，平台将进行封禁、严重者处分或对账号进行封停权！请勿轻信各类广告信息，谨防上当受骗。

欢迎来到聊天室。

聊聊这场比赛吧...

西甲新赛季限时特价预售 冰点价仅218元

简介 赛况 阵容 数据

**技术统计**

瓦伦西亚	马德里竞技
射门	12 13
射正	3 10
进球	0 1
传球	583 245
传中	28 6
点球	0 0
角球	6 2
抢断	5 18
越位	1 7
犯规	15 17
控球率	70% 30%

**球队积分**

排名	球队	场次	胜	平	负	积分
1	皇家马德里	10	7	2	1	21
2	巴塞罗那	10	6	3	1	21
3	毕尔巴鄂竞技	10	4	3	3	15
4	瓦伦西亚	10	3	3	4	12
5	塞维利亚	10	3	2	5	11
6	马德里竞技	10	3	2	5	11
7	皇家贝蒂斯	10	2	3	5	9
8	西班牙人	10	2	2	6	8
9	赫塔菲	10	1	2	7	5
10	埃尔切	10	1	1	8	4
11	瓦伦西亚	10	1	1	8	4
12	塞维利亚	10	1	1	8	4
13	皇家社会	10	1	1	8	4
14	毕尔巴鄂竞技	10	1	1	8	4
15	加的斯	10	1	1	8	4
16	马德里竞技	10	1	1	8	4
17	皇家马略卡	10	1	1	8	4
18	瓦伦西亚	10	1	1	8	4
19	塞维利亚	10	1	1	8	4
20	西班牙人	10	1	1	8	4

**Match Details (Top Left):**

皇家贝蒂斯 3-0 埃尔切

2022-08-16 03:30 第1轮 贝尼托·比利亚马林球场

03:32 纳比勒·费基尔 黄牌  
21:22 艾托·鲁伊巴尔 黄牌  
27:45 博尔哈·伊格莱西亞斯 进球 1-0  
38:43 胡安米 进球 2-0

00:00 比赛开始  
15:42 约翰·切伦亚·恩万科·唐纳 红牌  
16:00 佩雷·米拉  
29:37 杰拉德·费尔南  
45:00 伤停补时

**Match Highlights (Top Middle):**

皇家贝蒂斯 首发阵容 4-2-3-1 主教练: 佩莱格里尼

03:32 纳比勒·费基尔  
15:42 约翰·切伦亚·恩万科·唐纳  
16:00 佩雷·米拉  
29:37 杰拉德·费尔南  
45:00 伤停补时

**System Notifications (Top Right):**

恭喜您完成22-23西甲赛季遗购买, 为答谢您的支持, 现赠送您一张50元西甲联赛官方商城优惠券用于购买指定商品...

**Spanish League Fixtures (Top Right):**

西甲赛程 西乙回放

今天 09/05 星期一

- 第4轮 | 布尔加斯 1 - 0 卡维特纳
- 第4轮 | 丰斯卡 3 - 0 伊维萨体育联盟
- 第4轮 | 萨拉戈萨 1 - 2 卢戈

明天 09/06 星期二

- 第4轮 | 新卡洛斯·塔尔蒂耶雷球场 皇家奥维耶多 03:00 莱万特

09/10 星期六

- 第5轮 | 埃尔普拉特体育场 皇家马德里

**Team Search (Bottom Left):**

搜索历史: 球队卡  
热门关键字: 进球、红牛

**Player Card Search (Bottom Middle):**

抱歉! 什么也没搜到...

**Club Profile (Bottom Right):**

巴塞罗那

成立时间: 1899年成立  
市值: 6.9亿欧元  
主教练: 哈维·埃尔南德斯  
粉丝数: 4

数据 资料 球员

概况: 22-23 赛季成绩  
排名: 2  
胜: 3  
平: 1  
负: 0

技术数据:

进攻	11	0	78	29
进球	1034	00:25	圣塞瓦斯蒂安	00:16
点球	1328	00:16	圣塞瓦斯蒂安	00:16
场均射门	1236	00:32	圣塞瓦斯蒂安	00:43
场均射正	1294	00:43	圣塞瓦斯蒂安	00:43

防守: 1 失球, 62 成功抢断, 36 拦截, 32 抢断

传球: 2193 成功率: 88%, 传中成功率: 28%, 62% 控球率

纪律: 48 黄牌, 9 红牌, 1 直接红牌, 1 点球

简介 赏析记录 转会记录

中文全称: 巴塞罗那  
所在地: 西班牙  
成立时间: 1899年  
主场馆: Spotify诺坎普球场  
容纳人数: 99354人  
主席: -  
世界排名: -

2018/07 – 2022/04 China Aerospace Science and Technology (Beijing) Co., Ltd. Full-Stack Engineer

Company Introduction

**Industry Category:** Information Transmission, Software and Information Technology Services | **Enterprise Nature:** Limited Liability Company (Invested or Held by Natural Person(s)) | **Scale:** 100-300 people

**Company Description:** China Aerospace Science and Technology (Beijing) Co., Ltd., headquartered in Beijing Haidian District's Shangdi International Incubation Park. It is a professional information consulting, solution, and IT service outsourcing provider

### **Job Description:**

On-site office work, responsible for the customized R&D work of Hitachi China - R&D Center - Elderly Care Project Team from scratch

According to the requirements of Hitachi China - R&D Center - Elderly Care Group, complete project iteration development and function R&D on time

During project implementation, responsible for preliminary research, time estimation, and progress promotion of R&D work

Docking the integration of other domestic elderly care project products with Hitachi China - R&D Center - Elderly Care Project Team products

During work, responsible for: mobile, mini-program, front-end, desktop, back-end and other company projects

Build and maintain project code document management platform and assign accounts for development team members

### **Project Introduction**

#### **1-Android Project – Brain Training (Tablet)**

**Project Description:** Brain Training is a localized application of Hitachi China's elderly care project, which real-time collects cerebral blood flow data through Bluetooth connection to brain electrical device XB-01, combined with interactive game training to improve the cognitive and reaction abilities of the elderly. The system dynamically renders interface colors based on brain activity and enhances immersive experience with voice feedback. After training, it generates brain activity indicators and charts to facilitate users' continuous tracking and evaluation of cognitive status.

**Functional Modules:** Localization, device search and pairing, login, device connection, game selection, game instructions, games, game results, result display, ranking, etc.

**Responsible Modules:** Localization, device search and pairing, login, device connection, game selection, game instructions, games, game results, result display, ranking, etc.

## Technical Points:

Based on ViewModel+DataBinding+Kodein to build MVVM development framework

Based on Fuel+Kotlin Coroutine +fuel-jackson+MultiStateView to build network request, parsing, and display framework

Based on couchbaseLite+sharepreferences+kotpref to build data storage

Based on EventBus+interface callback to build Android's publish-subscribe events and event callbacks

Custom view to implement custom input keyboard and face recognition area during face recognition and ranking

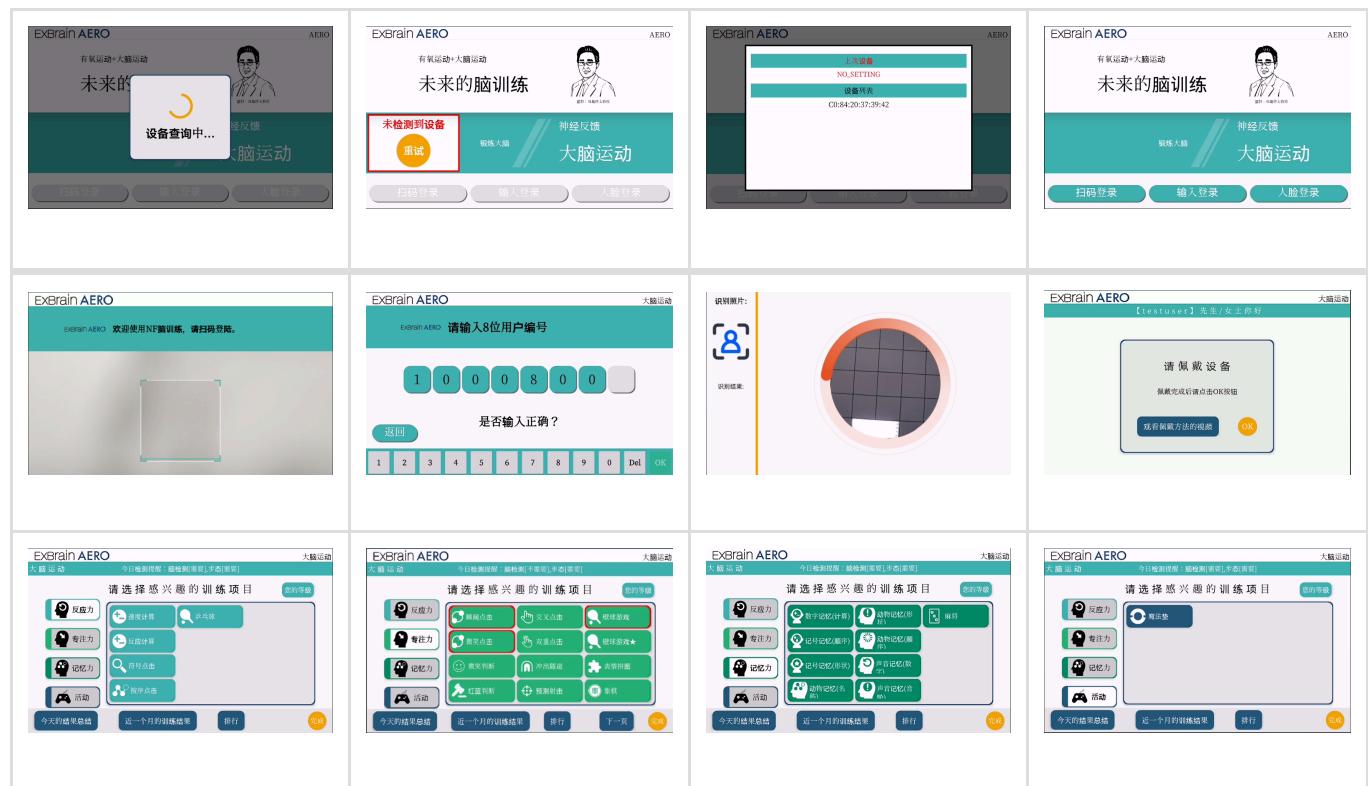
Based on permissionsdispatcher to manage app runtime dynamic permissions

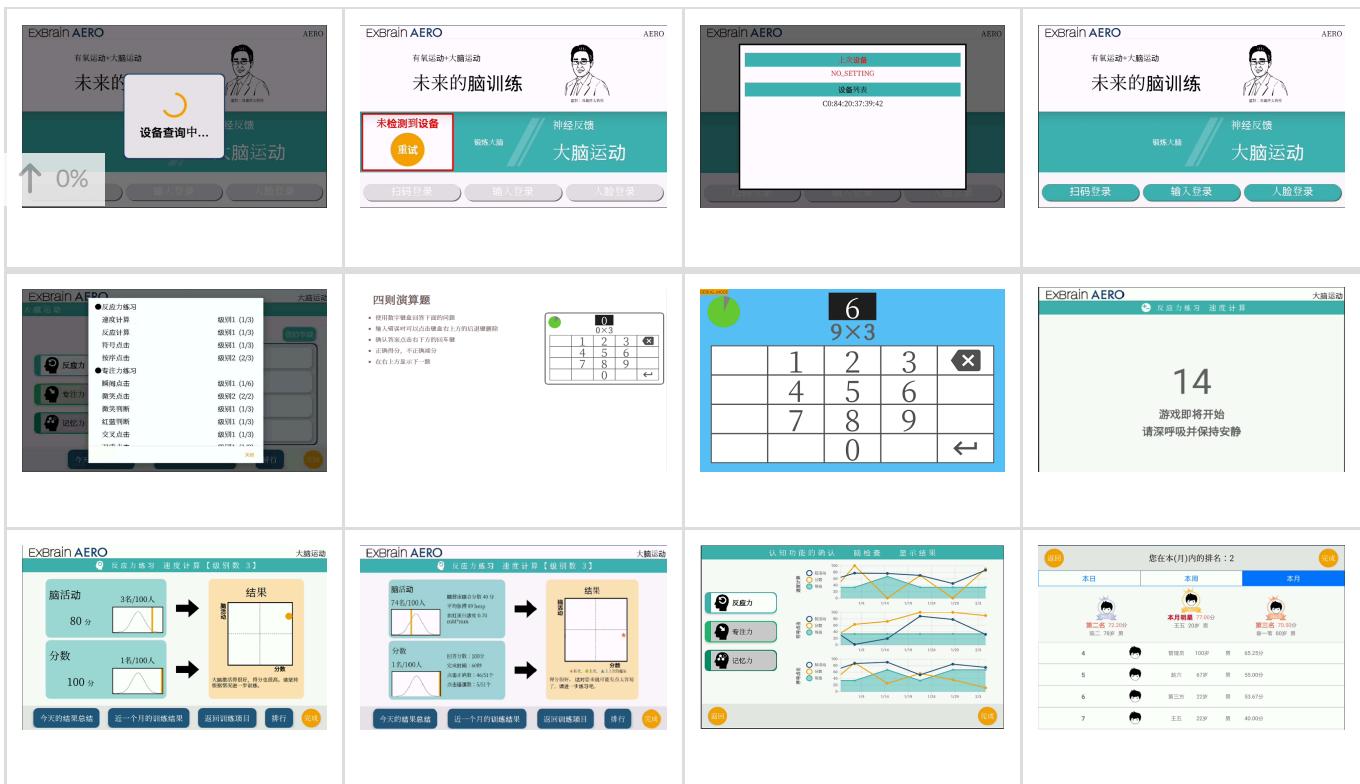
Based on LeakCanary to detect application memory leaks

Android native and WebView(js) game interaction

Based on OpenCV to implement face recognition and login functions

## Project Preview





## 2-Android Project – Brain Detection (Tablet)

**Project Description:** Brain Training is a localized product of Hitachi's elderly care group that migrated Japanese elderly care projects to China. Through three groups of games [Numbers], [Numbers in Chinese], and [Numbers in Chinese and Letters], it respectively detects users' reaction ability, concentration, and memory. Before the game, users wear the brain device XB-01, and during the game, it obtains the brain blood volume of the wearing device through Bluetooth SDK and records it to a CSV file, combined with game results and based on sampling distribution data to give the final result. And print the result information.

**Functional Modules:** Localization, device search and pairing, login, device connection, game practice, games, game results, game reports, etc.

**Responsible Modules:** Localization, device search and pairing, login, device connection, game practice, games, game results, game reports, etc.

### Technical Points:

Based on ViewModel+DataBinding+Kodein to build MVVM development framework

Based on Fuel+Kotlin Coroutine +fuel-jackson+MultiStateView to build network request, parsing, and display framework

Based on couchbaseLite+sharepreferences+kotpref to build data storage

Based on EventBus+interface callback to build Android's publish-subscribe events and event callbacks

Custom view to implement custom input keyboard and face recognition area during face recognition

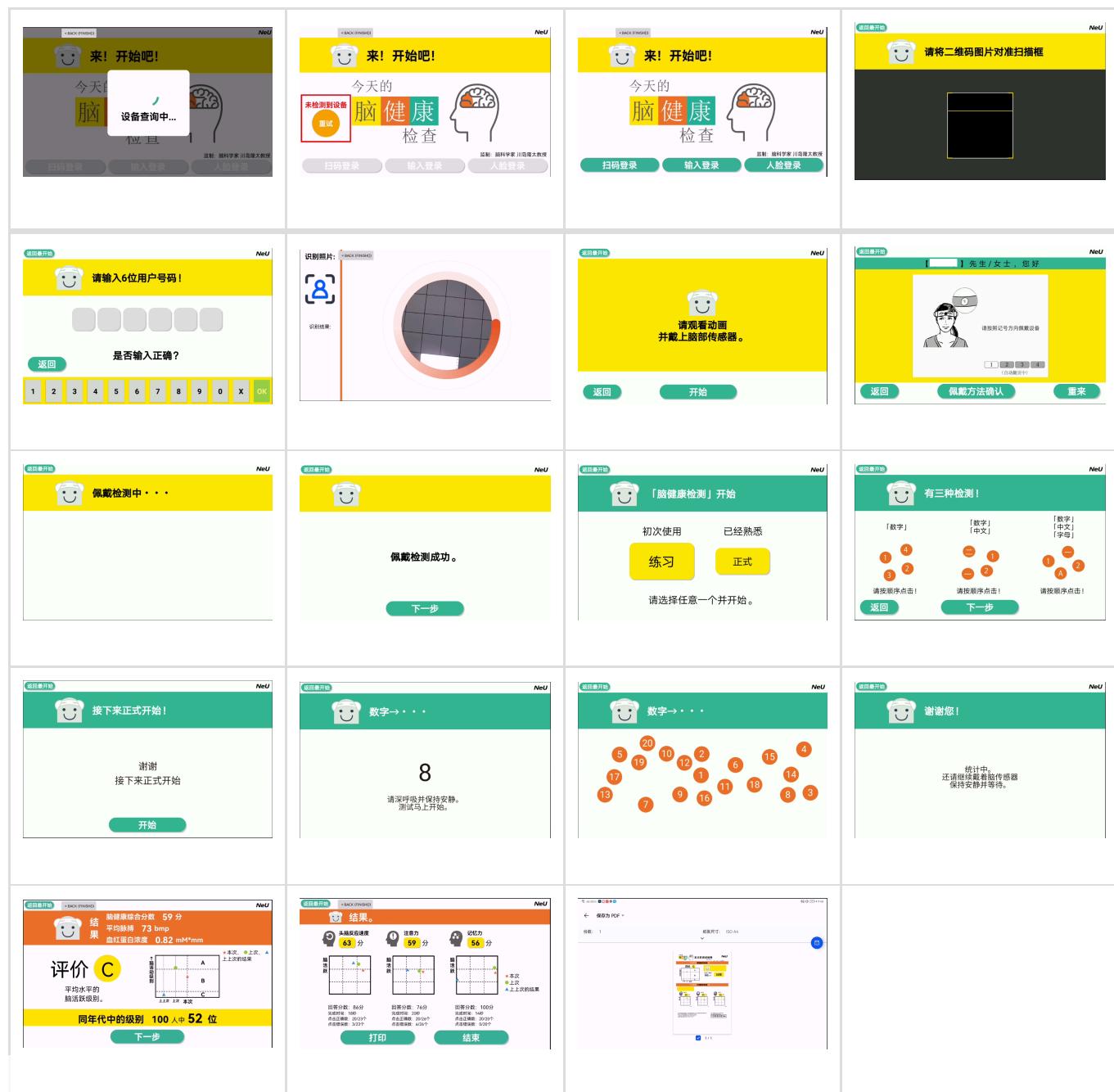
Based on permissionsdispatcher to manage app runtime dynamic permissions

Based on Epson SDK to print result reports

Based on qrcodeZxing to identify QR codes

Based on OpenCV to implement face recognition and login functions

## Project Preview



### 3-Android Project – Recording App

**Project Description:** Recording App is a project that integrates similar domestic elderly care projects and is used to collect and organize project data information of cooperative enterprises (magic mat, black goldfish, robot, etc.) to enrich the diversification of elderly care project team products, including project list, login, data collection and other functions.

**Functional Modules:** Project list, login, data collection, etc.

**Responsible Modules:** Project list, login, data collection, etc.

**Technical Points:**

Based on ViewModel+DataBinding+Kodein to build MVVM development framework

Based on Fuel+Kotlin Coroutine +fuel-jackson+MultiStateView to build network request, parsing, and display framework

Based on EventBus+interface callback to build Android's publish-subscribe events and event callbacks

Custom view to implement custom input keyboard and face recognition area during face recognition

Based on permissionsdispatcher to manage app runtime dynamic permissions

Based on BluetoothKit for Bluetooth data connection and collection

Based on qrcodeZxing to identify QR codes

Based on OpenCV to implement face recognition and login functions

### Project Preview

## 4-uni-app Mini Program - 24H Safety Guardian System

**Project Description:** 24H Safety Guardian System is one of the many projects in Hitachi's elderly care project team. It detects users' sleep status and activity information through hardware bracelets (worn on the hand) + mats (laid on the bed), and gives alarm reminders when monitoring abnormalities.

**Functional Modules:** Status, Early Warning, Statistics, My Profile

**Responsible Modules:** Status, Early Warning, Statistics, My Profile

**Technical Points:**

Based on Vue+css to build layout pages

Create Vue components for repeated use in pages

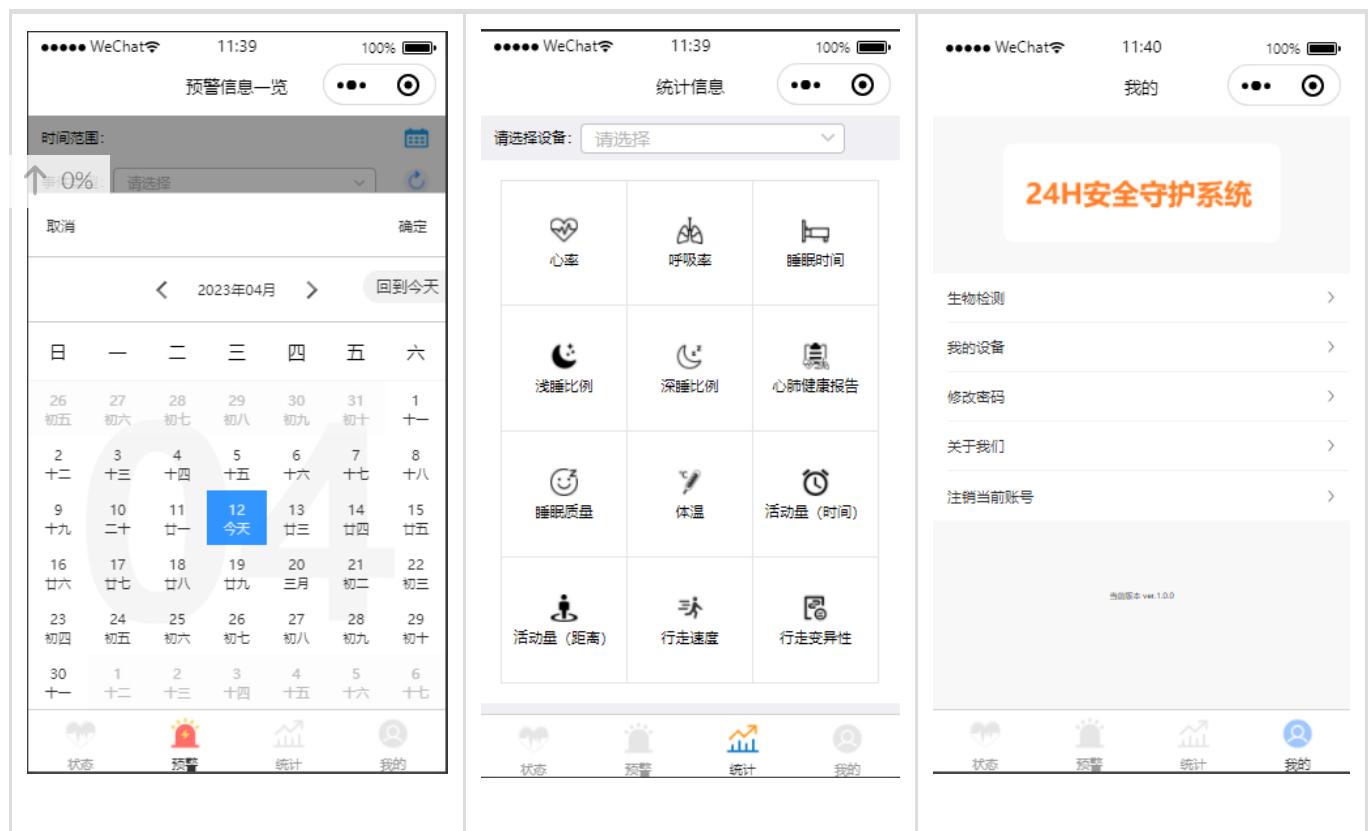
Based on u-charts to draw heart rate, sleep, movement, body temperature and other charts

Based on uni-load-more to refresh page data

Common uni-app components used in the project such as: area-picker (province-city-district address selector), jyf-parser (convert string to html), uni-calendar (calendar), uni-collapse (collapsible panel), uni-fab (floating button), uni-popup (popup layer), xfl-select (dropdown box), etc.

## Project Preview





## 5-WeChat Mini Program – Hitachi Health

**Project Description:** Hitachi Health Mini Program is a WeChat mini program developed by Hitachi's elderly care project team after partially integrating existing projects (gait + brain training + sleep health, etc.). It is convenient and quick, used and gone, and can implement some functions that require apps and hardware without installing apps.

**Functional Modules:** Login and registration module, user information modification module, home page, chronic disease management, cognitive management, fall management (gait analysis implemented with hardware), daily management, etc.

**Responsible Modules:** Cognitive management, fall management (gait analysis implemented with hardware), etc.

### Technical Points:

Based on Flex layout+css to build mini program layout pages

Based on template to build template components for repeated use in pages

Canvas draws video recording countdown animation

Mini program dynamic permission handling (geographical location, video recording, photography)

Based on JS-SDK to handle data interaction between mini programs and webview

Based on Tencent Map to obtain user location and display map components

Encapsulate network interface requests and necessary data storage and reading

# Project Preview

日立健康管理平台

手机号  
请输入手机号  
发送验证码

验证码  
请输入验证码

登录/注册  
用微信账号登录

您今日的健康状态  
需要关注★★★

52 脑训练 慢病患病风险 步态分析

DLH是什么  
守护自己和家人的健康

慢病管理  
预测慢性病患病风险

开始慢病患病风险预测  
需要输入相关健康信息

慢病预测结果  
拍摄过往体检报告  
导入过往的报告可提高预测的准确性

认知管理  
检测脑功能, 预防认知障碍

报告  
2022-01-17 15:23:35 >  
2022-01-17 14:31:03 >  
2022-01-10 10:05:18 >

认知管理  
2022-01-17 14:31:03 >  
2022-01-10 10:05:18 >

认知训练游戏  
麻将 历史成绩  
象棋 历史成绩  
台球 历史成绩  
乒乓球 历史成绩  
数字/图形/声音 历史成绩

【象棋】游戏结果  
★★★★★

本局时长 9分钟  
赢得点数 2  
平均出牌时间 9秒

退出游戏 继续游戏

本次结果评价  
下 专注力等级  
原因分析

麻将  
历史成绩  
时间 得分  
2022-01-10 10:05:18 64  
2022-01-21 14:39:45 12

跌倒管理  
跌倒分析, 跌倒报警

分析跌倒风险  
只需拍摄15-20秒行走的视频

视频拍摄规则  
视频长度 15-20秒  
视频内容 3-4米内往返行走2个来回  
拍摄距离 6米以内  
操作要求 手机静置, 光线足, 拍全身

样例播放  
开始拍摄

## 6-Web Frontend – Games

**Project Description:** Frontend games are game projects used in brain training, brain detection, and mini programs. They are games made based on the P5.js engine and collected and organized from open source game projects on GitHub. In App project games, it displays game instructions and game content, and interacts with Android native projects and transmits data. In WeChat mini programs, it transmits game results to mini programs with the help of WeChat JS-SDK. And it is adapted to tablet and mini program pages.

**Functional Modules:** P5.js games (more than 40 independent games), GitHub mini games (mahjong, chess, billiards, table tennis), etc.

**Responsible Modules:** P5.js games (more than 40 independent games), GitHub mini games (mahjong, chess, billiards, table tennis), etc.

### Technical Points:

Based on P5.js to draw mini game visual interaction pages

Based on p5.play to create games and characters

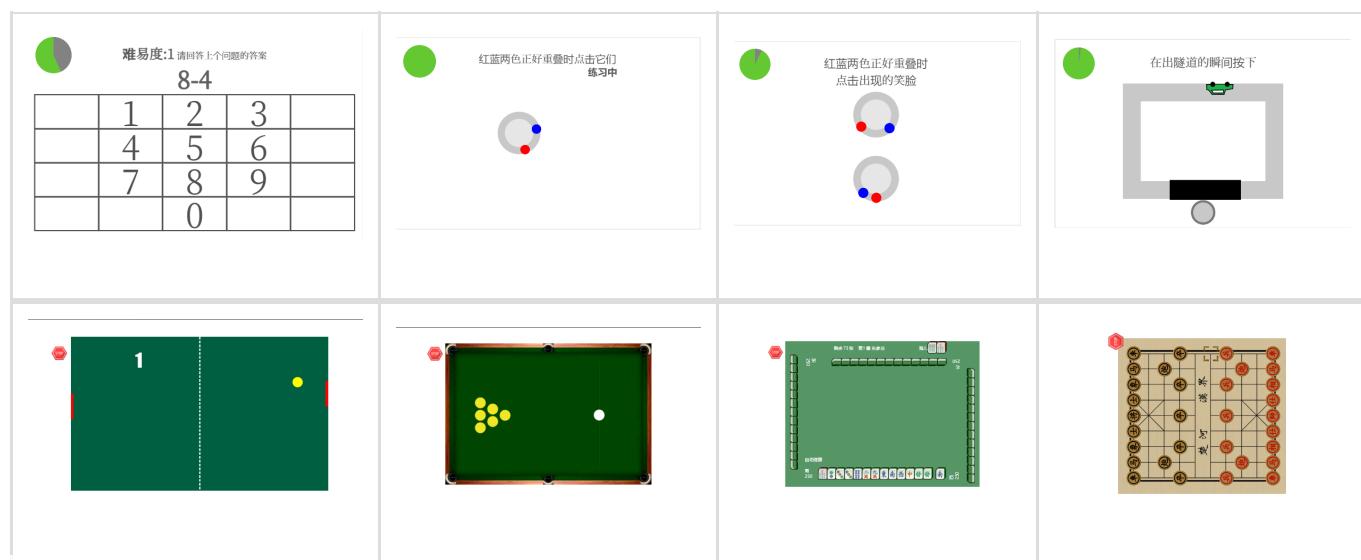
Based on p5.sound to play click sound effects and voice sound effects

Based on marked.js to render markdown pages as html pages

Based on webpack to package project files

Handle frontend game data interaction with Android and mini program ends and data transmission

### Project Preview



## 7-C# Project – Magnetic Induction Finger Opening and Closing Motion Detection

**Project Introduction:** Magnetic Induction Finger Opening and Closing Motion Detection is a desktop application that uses finger sensors to detect finger opening and closing movements according to gesture rules, collect gesture samples, and then judge human body functions.

**Project Modules:** Login, sensor (data sampling), data saving, radar waveform analysis, data uploading, etc.

**Responsible Modules:** Data saving, radar waveform analysis, data uploading, etc.

### Technical Points:

Hybrid WCF development framework

Component dependencies (Compos (icons, logs, mathematical calculations))

Hardware dependencies (HidCom (Bluetooth, USB))

Save data information to access database

Save final results to mysql database through network

### Project Preview

The figure displays a 4x2 grid of screenshots from the JustTap application, illustrating its various features and user interfaces:

- Top Left:** A screenshot of a Windows application window titled "[JustTap] - 输入产品ID". It shows a text input field with "JT02 - 00001" and a status bar with "E8B89E E00 - 2F5 B - 4782D87E17". Buttons for "下一项" (Next) and "取消" (Cancel) are visible.
- Top Middle:** The application's logo, "JT JustTap", featuring a stylized "JT" icon and the text "JustTap". Below the logo are three buttons: "被测者ID" (Testee ID) with a placeholder, a teal "登录" (Login) button, and three smaller buttons for "设置" (Settings), "详细模式" (Detailed Mode), and "退出" (Exit).
- Top Right:** A "登录设定界面" (Login Setup Interface) window. It contains fields for "管理员ID" (Administrator ID) and "密码" (Password), and buttons for "取消" (Cancel) and "登录" (Login). A red arrow points to the "设置" (Settings) button at the bottom left of the window.
- Bottom Left:** Another "登录设定界面" window, identical to the one above it, showing fields for "管理员ID" (administrator) and "密码" (password), and buttons for "取消" (Cancel) and "登录" (Login).
- Bottom Middle Left:** A screenshot of a measurement setup screen. It shows two hands with sensors attached, labeled "左: 电压 8" (Left: Voltage 8) and "右: 电压 5" (Right: Voltage 5). A red line connects the hands. A green "保存" (Save) button is at the bottom. Below the hands, text says "从左手开始重新取得" (Start from the left hand to re-acquire). The top of the screen has tabs for "设置", "管理操作员", "选择特征量", "测量条件", "取得装置电压", "修改密码", and "administrator".
- Bottom Middle Right:** A "请选择基本信息" (Please Select Basic Information) screen. It includes a date picker for "出生年月" (Birth Month) with fields for year (1990), month (11), day (12), and buttons for "日" (Day), "7", "8", "9", "4", "5", "6", "1", "2", "3", "Del", "0", and "Ent". To the right are gender icons for "男性" (Male) and "女性" (Female), and hand icons for "惯用手" (Dominant Hand) with "左手" (Left Hand) and "右手" (Right Hand) options. A "下一步" (Next) button is at the bottom right.
- Bottom Right:** A "测量的准备" (Preparation for Measurement) screen. It shows two hands with sensors attached, and text instructions "请如图所示, 闭拢拇指和食指" (Please close your thumb and index finger as shown). The top of the screen has tabs for "佩戴方法", "准备", "练习①", "测量①", "练习②", "测量②", and "结果分析". A "设定" (Set) button is at the bottom right.
- Bottom Left (Large Image):** A large image showing a flowchart of 7 steps for measurement setup. Step 1: 戴戴方法 (Wear method). Step 2: 测量准备 (Measurement preparation). Step 3: 练习① (Practice 1). Step 4: 测量① (Measurement 1). Step 5: 练习② (Practice 2). Step 6: 测量② (Measurement 2). Step 7: 结果分析 (Result analysis). A "开始" (Start) button is at the bottom.



## 8-Web Frontend - Hitachi Health Care System Ver1.0

**Project Introduction:** This system is a gait analysis POC project, which collects image data of the elderly walking and performing specified actions through camera equipment, combines with motor ability evaluation models, realizes action visualization display and ability scoring, assists users to understand and improve their own motor functions, and is widely applicable to smart elderly care and rehabilitation assistance scenarios.

**Project Modules:** Gait analysis, action analysis, questionnaire survey

**Responsible Modules:** Gait analysis, action analysis, questionnaire survey

**Technical Points:**

Based on LigerUI to build the overall project framework

Based on jQuery-ajax to execute network requests and front-end and back-end interactions

Based on Highcharts to draw gait analysis results and historical data charts

Based on jQuery-UI to use jQuery components to quickly draw interfaces

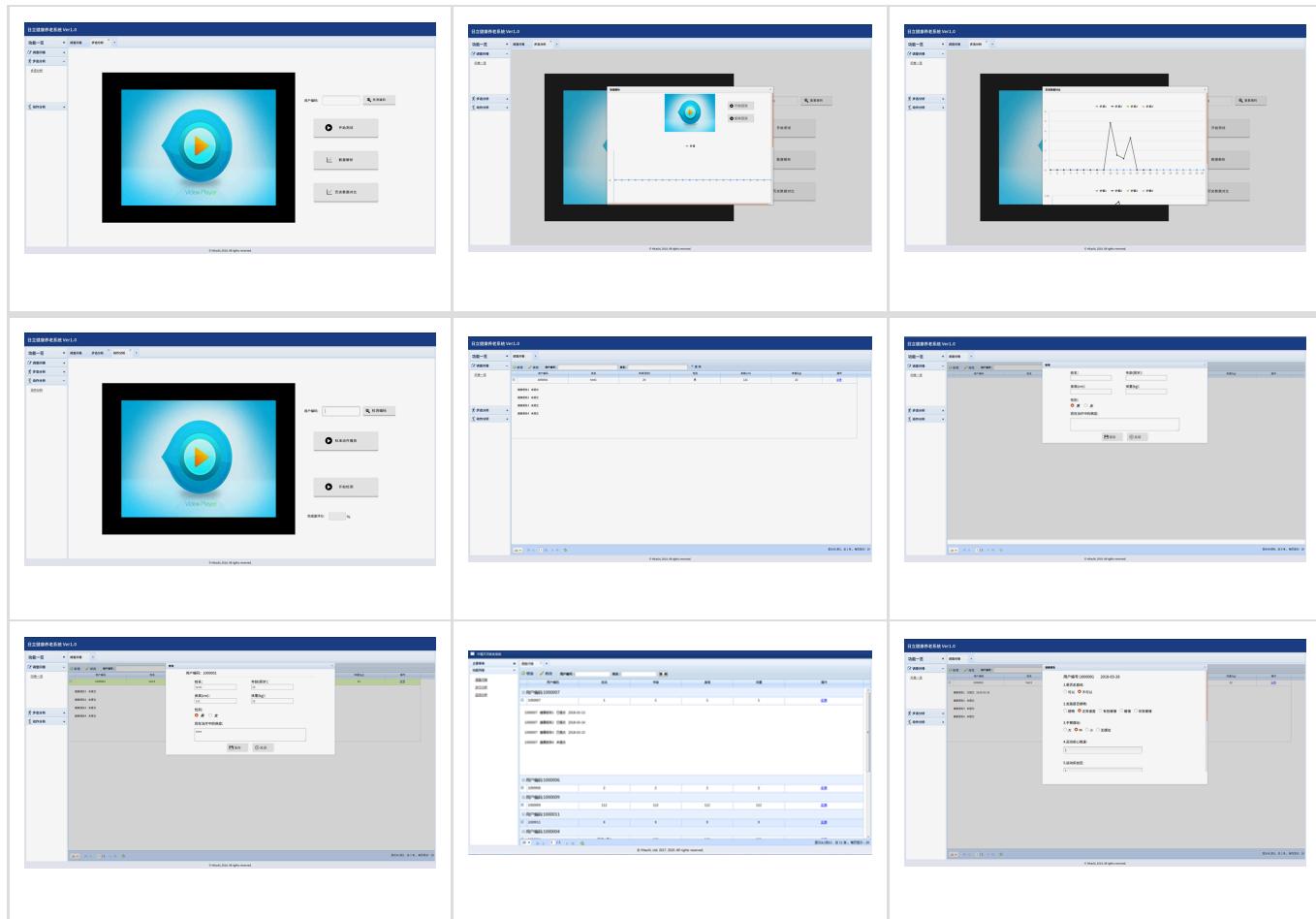
Based on jquery-validation for form data validation

Based on jQuery-Cookie to operate Cookie cache data

Based on json2.js-json to implement serialization and deserialization of network request results

Based on jquery.scrollstop to solve scrolling event problems

## Project Preview



## 9-Web Frontend - Hitachi Intelligent Elderly Care Management System Ver2.0

**Project Introduction:** Hitachi Intelligent Elderly Care Management System is a brand-new upgraded version and completely revised version of Ver1.0. The system is divided into administrator accounts and institution accounts. The administrator account is equivalent to a super user, which can log in to institution accounts and is used to manage institutions, manage apps, manage databases, etc. Institution accounts are used to manage users, training projects, rankings, status previews, data analysis, etc.

**Project Modules:** Administrator account, institution account

**Responsible Modules:** Administrator account, institution account

**Technical Points:**

Based on layui mainstream frontend framework to build the overall project framework

Based on bootstrap to implement responsive layout and icons, styles, components, etc.

Based on echarts to draw test results and statistical analysis

Based on jQuery-ajax to execute network requests and front-end and back-end interactions

Based on qrcode to generate user QR codes

Based on tracking-min.js and face-min.js developed face recognition library

Based on ckplayer to control player gait videos

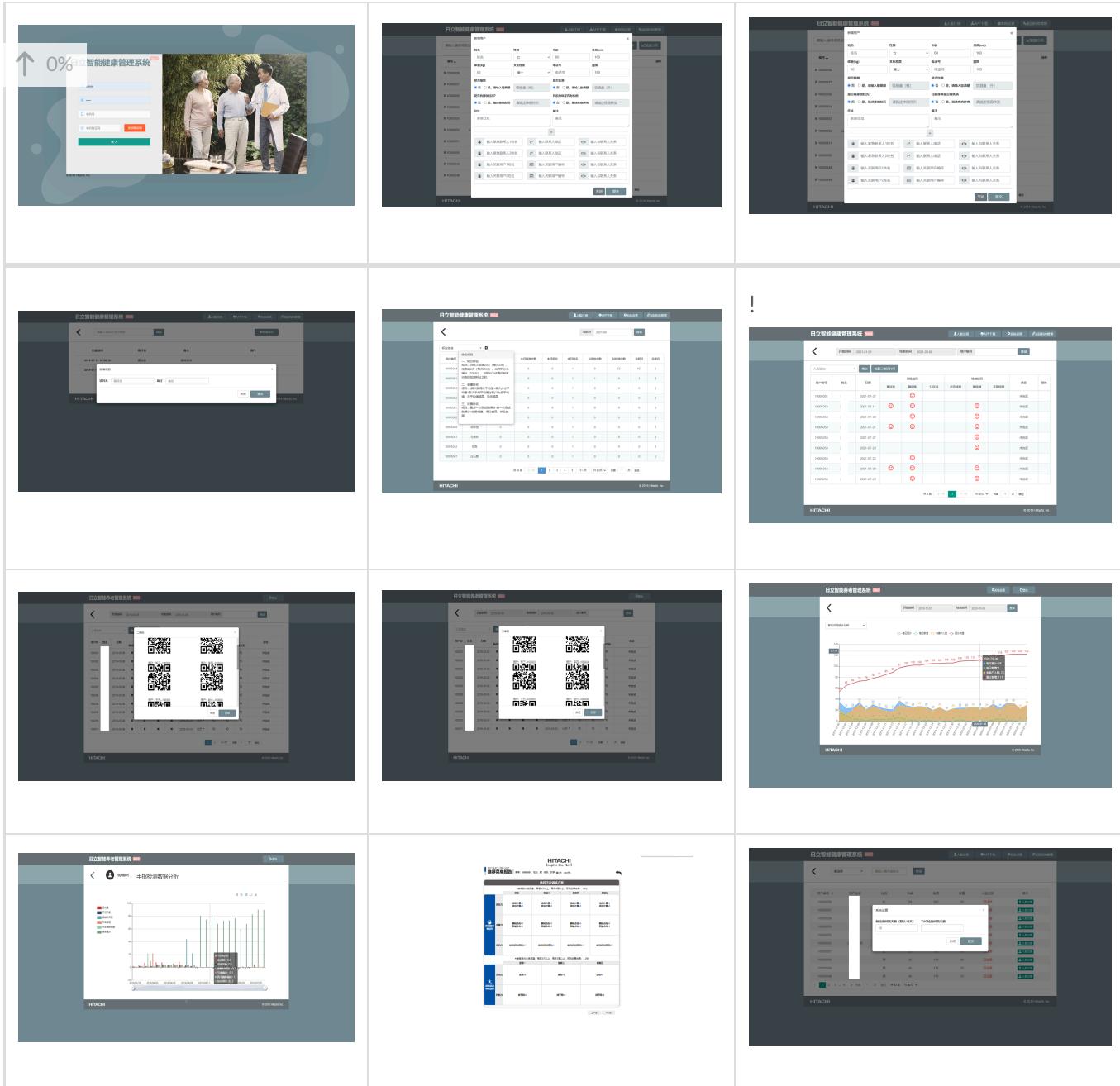
Based on Toastr to create and manage notification messages

## Project Preview

### 1-Administrator Account

The screenshots illustrate the administrator's interface for managing users. The top row shows the main dashboard with three user groups: 16+, 7+, and 12+. Below each group are summary statistics and a list of users. The middle row shows a detailed view of a user profile and a form for creating a new user. The bottom row shows a search interface for users and an edit form for updating user details.

## 2-Institution Account



The screenshots illustrate the 'Intelligent Health Management System' developed for Hitachi. The system includes a user interface for managing medical records, tracking patient data, and performing mobile health monitoring. It features a clean design with dark-themed panels and light-colored input fields. Key components shown include:

- Home screen: Displays a progress bar at 0%, a photo of a doctor and patient, and a navigation menu.
- Data entry forms: Used for inputting patient information, including names, ages, and medical details.
- List views: Show a grid of medical records with various status indicators.
- Detail view: Provides a comprehensive look at a single record, including QR codes for quick access.
- QR code scanning: A feature for tracking mobile health data.
- Analysis charts: Visual representations of data trends over time.
- New record entry: A form for creating new medical entries.

2016/07 – 2018/06 Tibet Yuanyu (Beijing) Network Technology Co., Ltd. Android Developer

## Company Introduction

**Industry Category:** Advertising/Public Relations | **Company Nature:** Foreign-funded | **Scale:** 100-499 employees

**Company Description:** Tibet Yuanyu (Beijing) Network Technology Co., Ltd. is a media company

covering national radio advertising business and contracted radio station business, while providing radio advertising services such as strategy formulation, creative copywriting, advertising production, and media purchasing.

## Job Description:

Responsible for product requirement analysis, function development, performance optimization, packaging and release, and version maintenance

Cooperate with product managers and testers to ensure product quality and on-time launch

Continuously optimize and improve client products based on user feedback

## Project Introduction

### 1-Android Project—Ting Bai FM Live

**Project Description:** Ting Bai FM is an online radio that collects nearly a thousand national radio stations and massive audio resources such as music, novels, cross-talk, storytelling, talk shows, emotional stories, etc.

**Project Modules :** Live broadcast, radio stations, categories, search, personal center, download, collection, program list, song list, song recognition, bullet screen, comments, red envelope, one-yuan car purchase, etc.

**Responsible Modules :** Live broadcast, radio station page, categories, playback, search, download, collection, program list, song list, song recognition, etc.

### Technical Points:

Build MVVM development framework based on DataBinding

Define API interfaces based on Retrofit2+RxLifecycle+okhttp

Develop local caching strategy based on DiskLruCache

Custom WebView to handle APP and JS protocol interaction events

Implement live room chat based on Huanxin chat room

Implement audio push, pull, and voice chat functions based on Qiniu Cloud

Offline download of song files based on MultiThreadDownloader

Other third-party components such as: live stream song recognition, bullet screen, Glide, WeChat payment, sharing, positioning, etc.

## Project Preview

## 2-Android Project—Ting Bai Crowdsourcing

**Project Description :** Ting Bai Crowdsourcing is an album in the Ting Bai FM category, including album list, program playback, program download, settings and other functions; currently there are 9 crowdsourcing projects: "Baby Listen to Bedtime Stories", "Cross-talk Collection", etc.

**Functional Modules :** Album list, playback, slide to switch programs, program download, cache

cleaning, timer shutdown, settings, etc.

**Responsible Modules :** Album list, playback, slide to switch programs, program download, cache  
cleaning, timer shutdown, settings, etc.

#### Technical Points:

PlayPlayer based on FFmpeg to play live streams and music files

Optimize Android's publish-subscribe events based on EventBus

Manage app runtime dynamic permissions based on RxPermissions

Detect application memory leaks based on LeakCanary

Load images and implement Gaussian blur based on Picasso

## 2015/10 – 2016/07 Timekeeper Internet Technology (Beijing) Co., Ltd. Android Developer

### Company Introduction

**Industry Category :** Public Relations/Marketing/Exhibition|**Company Nature :** Private|**Scale:**

10-50 employees

**Company Description :** Timekeeper Internet Technology (Beijing) Co., Ltd. is an Internet company that provides conference and event services through the "Internet + conference service crowdsourcing" model.

### Job Description:

Create product manuals, project flowcharts, and development documents

Develop projects according to the schedule based on product prototypes and descriptions

Carry out product compatibility, adaptation, and product iteration work

### Project Introduction

#### 1-Android Project—E Event User App

**Project Description :** e Event is a one-stop event service platform. You can choose from many positions such as models, etiquette, actors, hosts, photography, translation, etc.; subscribe to

topics of interest to get event push notifications early; add friends and chat interactively!

**Functional Modules :** Event plaza, messages, address book, event management, event details, personal information, enterprise information, moments, group chat, wallet management, my follows, etc.

**Responsible Modules :** Event plaza, messages, address book, event management, event details, personal information, enterprise information, moments, group chat, wallet management, my follows, etc.

#### **Technical Points:**

Build network access framework based on KJFrameForAndroid

Implement cool interactive effects based on MD material design

Based on Baidu Map SDK, implement route planning and current location identification

Based on Huanxin SDK, implement interactive chat within the application

### **2-Android Project—E Event Enterprise App**

**Project Description :** e Event Enterprise Edition is an event APP designed to solve the problems of enterprises in organizing activities. It provides one-stop event services for enterprises through "human resource crowdsourcing" and "granular service process".

**Functional Modules :** Event hall, publish information, event classification, my store, my orders, shopping cart, checkout, etc.

**Responsible Modules :** Event hall, publish information, event classification, my store, my orders, shopping cart, checkout, etc.

#### **Technical Points:**

Build project framework based on MVP

Implement payment function based on WeChat SDK

Use RecycleView instead of ListView to implement complex interface layout

Implement pull-to-refresh and pull-to-load based on BGAResfreshLayout

## Company Introduction

**Industry Category :** Education/Training/Institutions | **Company Nature :** Private | **Scale:** 100-499

↑ 0%  
employees

**Company Description :** LeYiKao Education Technology Group is committed to creating a new learning and employment education service platform for learners, especially college students, and providing universities with complete employment and entrepreneurship education solutions based on "Internet+".

## Job Description

Complete code writing, debugging, testing and maintenance according to design documents or requirements

Complete functional module development and iterative development within the specified cycle according to the schedule

Coordinate with testers to complete testing work, fix bugs, and provide technical support for operations and products

## Project Introduction

### 1-Android Project—E Chao Chao User App

**Project Description :** E Chao Chao is a social workplace information product that integrates assessment, job search and information. Through professional tests and ability assessments, it provides college students with accurately matched high-quality positions and extensive social employment information, helping college students gradually recognize and improve their self-employment ability and basic professional quality, master social workplace information, and ultimately achieve the goal of optimal employment.

**Functional Modules :** Career assessment, employment research, recommended positions, my resume, learning, discovery, search, etc.

**Responsible Modules:** Recommended positions, discovery, my resume, etc.

### Technical Points:

Build network access framework based on Xutils

Custom View to implement complex interfaces and effects

Use Imageloader and LruCache to load network images and set up caching

SQLite stores province-city-county tables, school tables, position category tables, industry category tables, etc., and perform multi-table queries based on these

## 2 ↑ 0% Android Project—E Chao Chao Enterprise App

**Project Description :** E Chao Chao Enterprise Edition is a free software for publishing enterprise recruitment positions. Position information is directly disseminated to universities across the country; it realizes functions such as publishing positions and receiving resumes; resume recommendation, actively pushing relevant resumes according to enterprise positions, allowing enterprises to easily discover talents.

**Functional Modules :** Resume recommendation, urgent recruitment, publish positions, resume download, resume collection, received resumes, my resumes, positions, settings, etc.

**Responsible Modules :** Publish positions, resume collection, received resumes, my resumes, settings, etc.

### Technical Points:

Build network access framework based on Volley

Implement province-city-county three-level linkage based on Android Wheel

Obtain resumes and my resume QR codes based on zxing scanning

Multi-channel packaging, Umeng statistics for download volume and survival rate, and bug viewing and fixing

## 2013/06 — 2014/06 Quanta Shanghai Manufacturing City Test Assistant Engineer

### Company Introduction

**Industry Category :** Electronics/Semiconductor/Integrated Circuit | **Company Nature :** Taiwan-funded | **Scale:** 10,000+ employees

**Company Description :** Quanta Shanghai Manufacturing City is the manufacturing base of Quanta Computer Group in mainland China, focusing on the production and manufacturing of laptops, servers, cloud products, etc.

### Job Description:

Resolve sudden testing issues, timely eliminate test anomalies caused by test programs and other factors

Train and assist new engineering test personnel

Assist PM in new model introduction, stability testing and anomaly analysis

## Personal Projects

### 1. Harmony Projects

#### 1—SwiperHM

**Project Ownership:** Personal Project (Private)

**Project Name:** SwiperHM

**Project Address:** <https://github.com/PGzxc/SwiperHM>

**Software Support:** Harmony Full Series

**API Version:** API Version 17

**Development Language:** ArkTS+ArkUI

**Development Tools:** DevEco Studio 5.0.5 Release

**Project Description :** Imitation of Douyin and Xiaohongshu Harmony project, based on api.apiopen.top open interface, implementing Douyin-like video swipe switching

**Functional Modules:** Home, Gallery, Publish, Message, Me

**Technical Points:**

Build Xiaohongshu-like bottom navigation based on Flex+Builder+scale+animation

Monitor data changes and UI synchronization based on V1, V2 state management

Adapt to screens and windows based on official tool WindowUtils

Custom components: @Builder decorator, @Component decorator

Third-party libraries: axios (network requests), pulltorefresh (refresh/load more)

Common components: WaterFlow (waterfall flow), Swiper (video swipe), Tabs (navigation bar), etc.

Audio and video: Video component and state management (playback, loop, preparation, start, error, etc.)

## Project Preview

01:29 100%

同城 关注 推荐

5458 5388 2289 2434

玫瑰要开心 不再孤单与我作伴 不要把自己活得像落难

首页 图集 + 消息 我

01:29 100%

同城 关注 推荐

5459 5388 2290 2434

玫瑰要开心 不要把自己活得像落难

首页 图集 + 消息 我

07:12 100%

同城 关注 推荐

7796 6233 1450 5127

清禾电影

复盘局（最后的对决）：天才神医PK老玩家，上演谋中谋中谋？

作者声明：内容来源于网络

首页 图集 + 消息 我

07:14 100%

同城 关注 推荐

7797 6233 1451 5127

清禾电影

复盘局（最后的对决）：天才神医PK老玩家，上演谋中谋中谋？

作者声明：内容来源于网络

首页 图集 + 消息 我

11:40 100%

动物 美女 汽车 漫画 食物 游戏 电影 摄影

两只小猫玩耍4K图片 火烈鸟4k壁纸

首页 图集 + 消息 我

01:54 100%

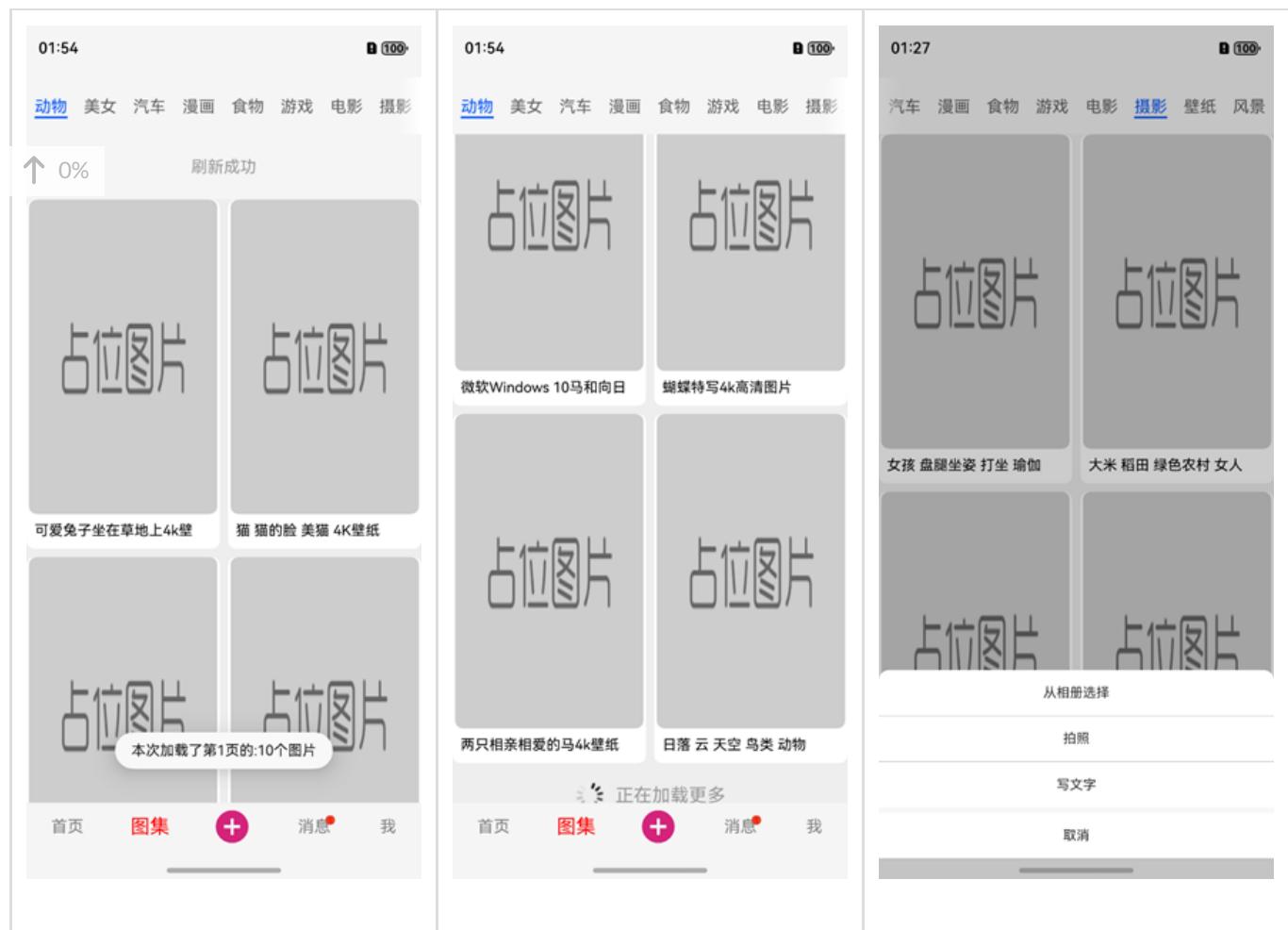
动物 美女 汽车 漫画 食物 游戏 电影 摄影

大象 非洲象 公路 行走 驯狗的女孩4k摄影图片

本次加载了第2页的10个图片

孔雀蓝色羽毛6k图片 两只相亲相爱的马4k壁纸

首页 图集 + 消息 我



## 2—WanCJ

**Project Ownership:** Personal Project (Open Source)

**Project Name:** WanCJ

**Project Address:** <https://github.com/PGzxc/WanCJ>

**Software Support:** Harmony Full Series

**API Version:** API Version 12

**Development Language:** Cangjie(.cj)+ArkUI

**Development Tools:** DevEco Studio NEXT Beta1+Node(18.18.2)

**Project Description:** This project is an open source project that converts Harmony development language from ArkTS(.ets) to Cangjie(.cj), with UI layout unchanged, using Cangjie to write logic, and quickly completing functional development based on encapsulating network access modules, custom components, etc.

**Functional Modules:** Home, Course, Tool, Me

**Technical Points:**

Build bottom navigation framework based on Tabs+TabContent

Perform network requests based on ohos.net.http, encapsulate Get, Post requests

Serialization and deserialization of data classes

Construct tool classes to convert JsonObject to Bean and String to JsonObject

Get network data and update status based on @State, @Prop and other decorators

Custom components based on @Builder decorator, extend existing components (methods), reduce reusable code

## Project Preview

The image displays a grid of 10 screenshots from a HarmonyOS application, arranged in two rows of five. Each screenshot shows a different screen or feature of the app.

- Row 1:**
  - 12:20 HarmonyOS 应用: A landing page with a title, a '详细了解' button, and a list of sections: 鸿蒙 (鸿蒙公众号, 2天前), Harmony: 关于鸿蒙系统的内容都总结在这里了 (鸿蒙公众号, 2024-09-08 15:27), 鸿蒙学习路径 (广场/广场Tab), 鸿蒙开发 (广场/广场Tab), and 鸿蒙应用开发学习路线 (鸿蒙公众号, 2024-09-08 15:21). Navigation icons at the bottom include 首页, 课程, 工具, and 我的.
  - 9:02 HarmonyOS 应用: A list of posts from '鸿洋'. Posts include: '关于鸿蒙系统的内容都总结在这里了' (鸿蒙公众号, 2024-09-10 00:00), '鸿蒙学习路径' (广场/广场Tab, 2024-09-08 15:27), '鸿蒙开发' (广场/广场Tab, 2024-09-08 15:26), and '鸿蒙应用开发学习路线' (鸿蒙公众号, 2024-09-08 15:21).
  - 12:20 C 语言入门教程\_阮一峰: A list of C language tutorials by '阮一峰'. Tutorials include: C 语言入门教程 (C 语言入门教程\_阮一峰, 2024-09-08 15:27), HTML 教程\_阮一峰 (HTML 教程\_阮一峰, 2024-09-08 15:27), SSH 教程\_阮一峰 (SSH 教程\_阮一峰, 2024-09-08 15:27), Bash 脚本教程\_阮一峰 (Bash 脚本教程\_阮一峰, 2024-09-08 15:27), and WebAPI 教程\_阮一峰 (WebAPI 教程\_阮一峰, 2024-09-08 15:21).
  - 10:58 C 语言入门教程\_阮一峰: A detailed view of the 'C 语言入门教程' section. It shows the title, author (阮一峰), and a brief description: 'C 语言入门教程' (阮一峰, C 语言入门教程).
- Row 2:**
  - 12:20 JSON格式化转Bean: A tool for JSON format conversion. It shows a table with columns: 支持JSON格式化 (支持JSON格式化, JSON转Java类, 树形展示等) and todo (todo, 在线的清单, 帮你记录灵感, 统计已经完成的事情). A note says '支持JSON格式化, JSON转Java类, 树形展示等'.
  - 12:20 我的: A user profile page titled '我的'. It includes sections: 欢迎登陆 (Welcome), 排名 (Ranking), 收藏 (Favorites), 等级 (Level), 积分 (Points), TODO (TODO), 模式 (Mode), and 关于我们 (About Us). It also shows a summary: 12345678, 918, 25, 36, 3535.
  - 6:30 我的: Another view of the '我的' profile page, showing the same sections and summary statistics.
  - < 登录与注册页面: A login and registration page. It has fields for 账号 (Account) and 密码 (Password). Below the fields are '登录' (Login) and '没有账号, 去注册' (No account, register now) buttons.
  - IMEI Keyboard View: A view of the on-screen keyboard, showing the English QWERTY layout with Chinese Pinyin input support. It includes a numeric keypad, symbols, and a completion bar.

### 3–WanAndroidHM

**Project Ownership:** Personal Project (Open Source)

 0% **Project Name:** WanAndroidHM

**Project Address:** <https://github.com/PGzxc/WanAndroidHM>

**Software Support:** Harmony Full Series

**API Version:** API Version 12

**Development Language:** ArkTS+ArkUI

**Development Tools:** DevEco Studio 4.0 Release+Node(16.20.1)+ohpm(1.2.5)

**Project Description :** This project is a Harmony open source hap based on the open API of WanAndroid website. It is an application that supports the full Harmony series developed using Harmony layout, components, and API.

**Functional Modules:** Home, Navigation, Project, Message, Me, etc.

**Technical Points:**

Use Tabs + TabBar to build bottom navigation framework, implementing multi-module switching and page management

Send network requests based on @ohos.net.http, use Promise to simplify asynchronous operation process

Manage network data binding and state updates through @State, @Prop and other decorators

Use @Builder, @Extend and other decorators to encapsulate custom components, reduce reusable code

Use preferences and PersistentStorage to implement user data persistence storage

Based on router, Navigator page routing and component navigation and pageTransition transition animation

Integrate @ohos/pulltorefresh to implement page pull-down refresh and pull-up loading functions

**Project Preview**



### 一起来做个app吧

玩Android 开放API

【小编】 ①2023-08-03 17:53  
【面试秘籍】《2023年Android中高级全面面试真题答案解析》原题命中率超高

【每日一问】 Binder是如何做到跨进程权限控制的?  
在framework的代码中，经常看到如下的权限检测的代码：

【每日一问】 Java 系列，奇怪的闪退?  
package org.example;

【每日一问】 Java线程栈的栈溢出

开发环境

Android Studio相关 gradle

官方发布 90-120hz

基础知识

Drawable deep link 基础概念

adb 字符编码 线程池 Span

多线程与并发 Apk诞生记 序列化

多进程

四大组件

Activity Service

BroadcastReceiver ContentProvider

Intent Context handler

常用控件

基础UI控件 ListView&GridView

ViewPager Fragment ScrollView

用户交互

首页 导航 项目 消息 我的

### 开发环境

Android Studio相关 gradle 官方发布 90-120hz

【鸿洋】 ①2022-03-02 00:31  
Android 中关于枚举的优化

【鸿洋】 ①2022-03-02 00:30  
总听说AGP，它到底做了什么？

【鸿洋】 ①2022-02-20 14:45  
Android 多源码仓库的依赖库版本统一管理方案

【鸿洋】 ①2022-02-14 23:40  
关于 Gradle 你应该知道的知识点

【hqk】 ①2021-10-21 00:22  
Android GradleGroovy类、方法与闭包详解

### 完整项目 跨平台应用 资源聚合类 动

【项目】 ②022-10-16 20:07  
WanAndroid-基础款  
WanAndroid基础款  
(MVVM+Kotlin+Jetpack+组件...)

【项目】 ②022-08-23 22:45  
一个强大的 Gradle Plugin，可以帮你演示你的 Android Demo 应用  
我们经常会写一些包含大量模版代码的  
Demo 应用，例如包含不同演示用例...  
【项目】 ②022-07-10 13:03  
【Design】  
WanAndroid (WanAndroids的更...  
WanAndroids的最佳Material Design实践，严格遵循Material设计，完美支持...  
【项目】 ②022-07-10 13:00  
巨丑难回 MVI-Dispatcher 绝佳  
使用。  
唯一可信源成熟度，自动消除 高频痛  
点。  
【项目】 ②022-07-03 23:22  
MVVM开源项目出行防疫App

未读消息 已读消息

暂时没有数据哦

首页 导航 项目 消息 我的

未读消息 已读消息

【鸿洋】 系统消息 ① 2022-12-29 20:05  
掘金年度创作者榜单 - Android 前 10 的独苗了，大家支...  
掘金年度创作者榜单 - yechaoa是唯一一个  
Android 前 10 的独苗了，大家支持一波吧，  
网页可以投票 8 票，app 可以投票 16 票，辛苦

【doug feng】 新回答 ① 2021-06-29 11:25  
回答了：每日一问 Dialog 的构造方法的 context 必须...

【鸿洋】 评论回复 ① 2021-06-18 17:40  
回复了@DaveBoy  
我晚点帮忙处理下图片~~ 估计答主不太好操作。

【DaveBoy】 评论回复 ① 2021-06-18 14:17  
回复了@dafasoft  
我看你有些图裂了

【dafasoft】 新回答 ① 2021-06-04 11:18  
回答了：每日一问 Dialog 的构造方法的 context 必须...  
看到回家的诱惑已经把context、token、

首页 导航 项目 消息 我的

### 我的

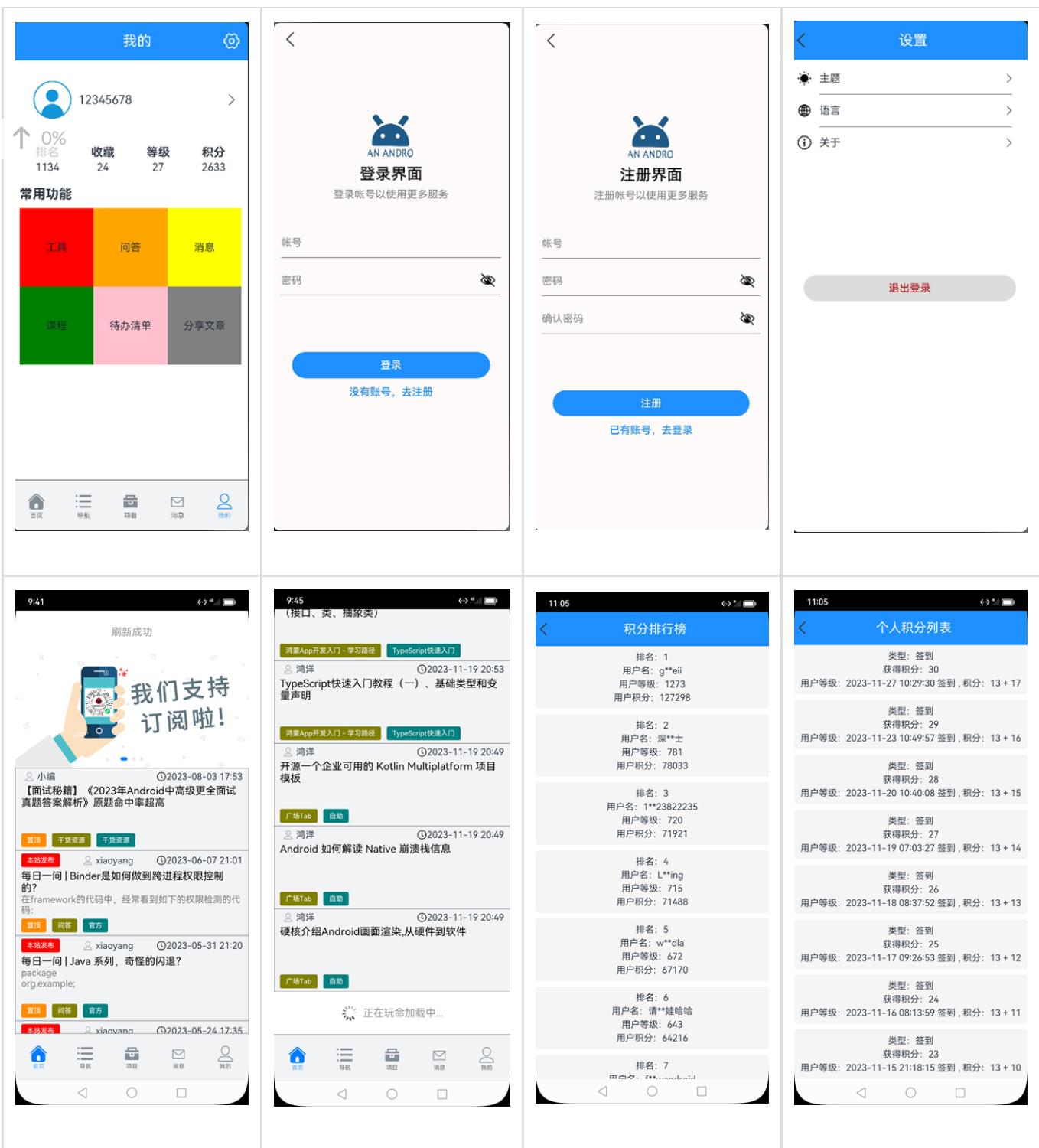
欢迎登陆 >

排名 收藏 等级 积分

### 常用功能

工具	问答	消息
课程	待办清单	分享文章

首页 导航 项目 消息 我的



## 4—BookHM

**Project Ownership:** Personal Project (Open Source)

**Project Name:** BookHM

**Project Address:** <https://github.com/PGzxc/BookHM>

**Software Support:** Harmony Full Series

**API Version:** API Version 10

**Development Language:** ArkTS+ArkUI

**Development Tools:** DevEco Studio 4.0 Release+Node(16.20.1)+ohpm(1.2.5)

**Project Description :** This is a reading app OpenHarmony version. Use List and Grid to handle book information display, and use Tabs navigation component at the bottom. This application uses local data to simulate returns.

**Functional Modules:** Reading, Bookshelf, Reading, Me

**Technical Points:**

Build bottom navigation framework based on Tabs+tabBar

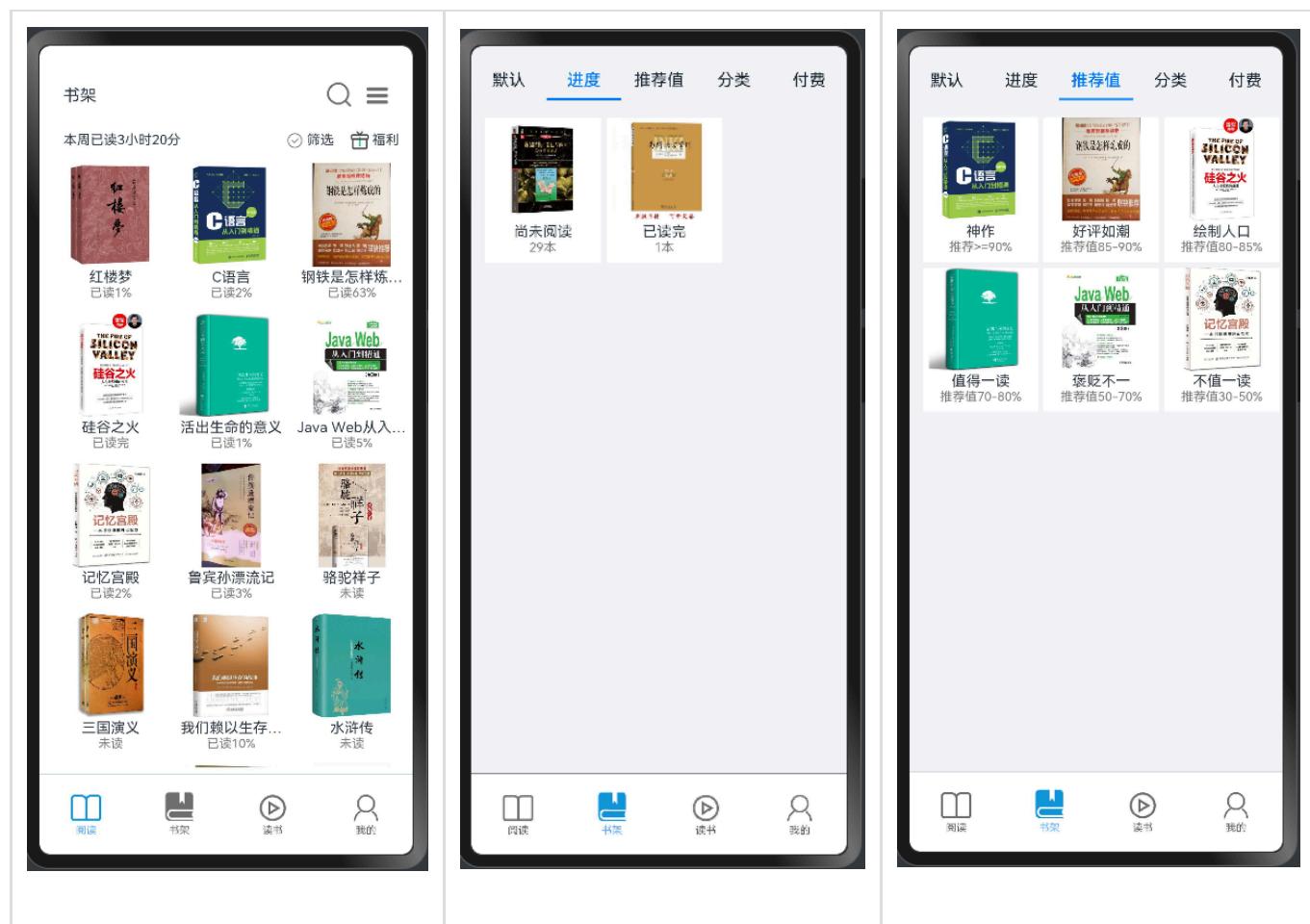
Update status based on @State, @Prop and other decorators

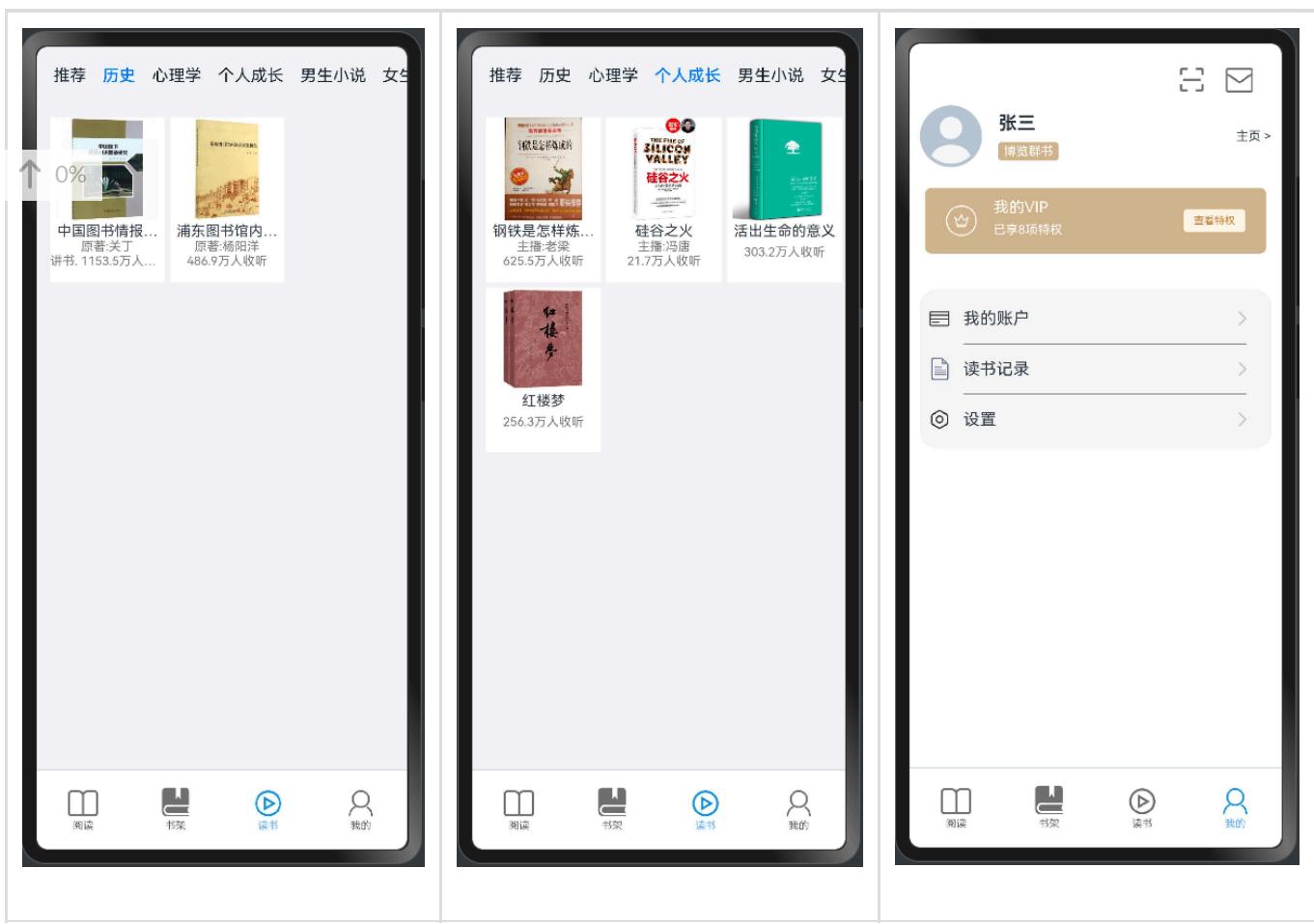
Monitor tab switching and set corresponding Tab data based on @Watch('changeTab')

Custom components based on @Builder, @Extend and other decorators, reduce reusable code

Based on router, Navigator page routing and component navigation and pageTransition transition animation

## Project Preview





## 2. Android Projects

### 1—SwiperAndroid

**Project Ownership:** Personal Project

**Project Name:** SwiperAndroid(Private)

**Project Address:** <https://github.com/PGzxc/SwiperAndroid>

**Software Support:** Android

**Development Tools :** Android Studio(2025.2.2)+Java(17.0.15)+Gradle(8.14.3)+Kotlin(2.0.21)+Trae

**Project Description :** Independently developed Android short video + image gallery browsing application, using Jetpack Compose to implement modern declarative UI; product form benchmarks Douyin/Xiaohongshu short video and image community, providing smooth video/image sliding browsing, category viewing, and full-screen immersive interactive experience.

**Functional Modules:**

Home: Local / Following / Recommended multi-tab content stream, supporting left-right swipe switching

Gallery: Image waterfall flow display, supporting categories and pagination loading

Publish: Content publishing entry, including interactive animation feedback

Message: System notifications and user interaction messages

Me: User information, works list and settings management

### Technical Points:

Architecture Design: Adopts MVVM architecture, implements UI and business logic decoupling based on ViewModel

UI Framework: Uses Jetpack Compose to build declarative UI, implementing responsive layout and smooth animation

State Management: Manages page state and side effects through Compose State + LaunchedEffect + ViewModel

Network and Data: Integrates Retrofit + OkHttp + Gson + Coroutines, implementing efficient asynchronous network requests and data parsing

Video Playback: ExoPlayer implements list auto-playback, full-screen switching and playback control (StyledPlayerView)

Image Processing: Glide implements efficient caching and loading, optimizing long list scrolling performance

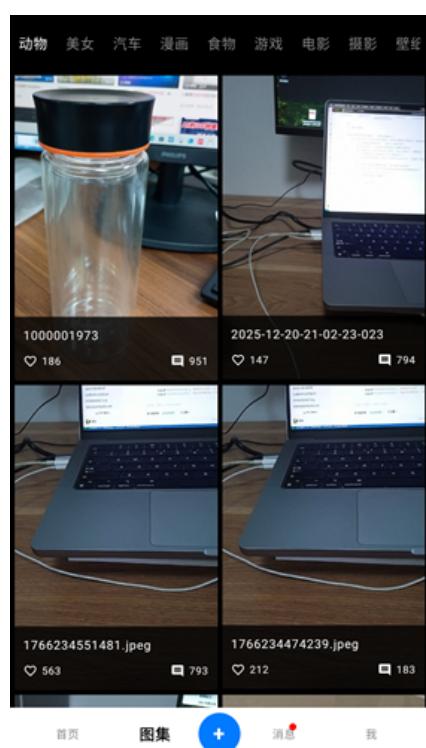
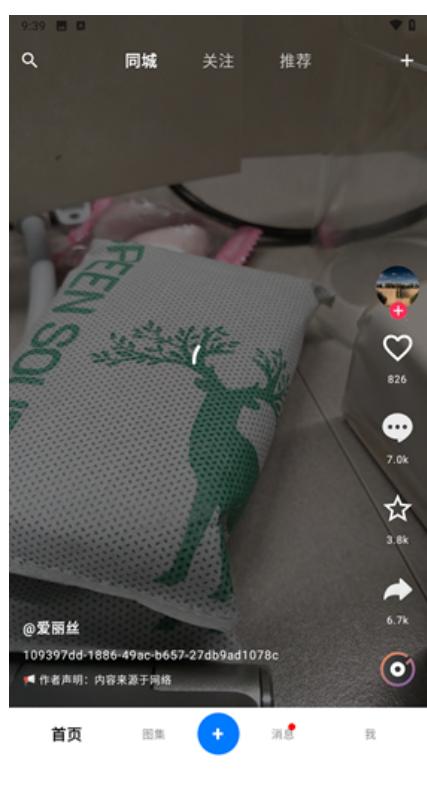
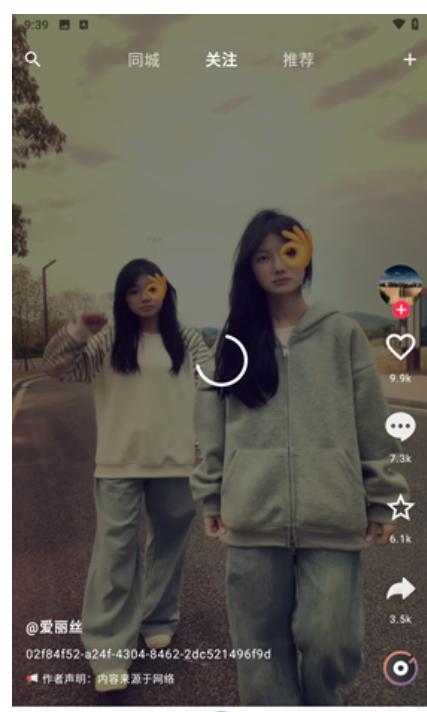
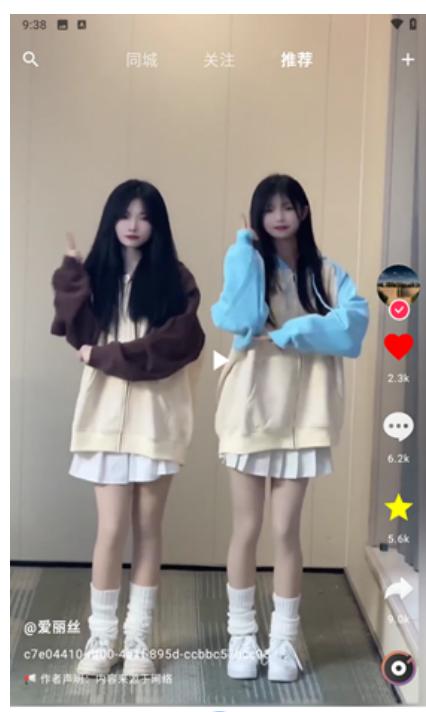
Gesture Interaction: Based on Compose gesture API to implement image zooming, sliding down to close and other immersive interactive experiences

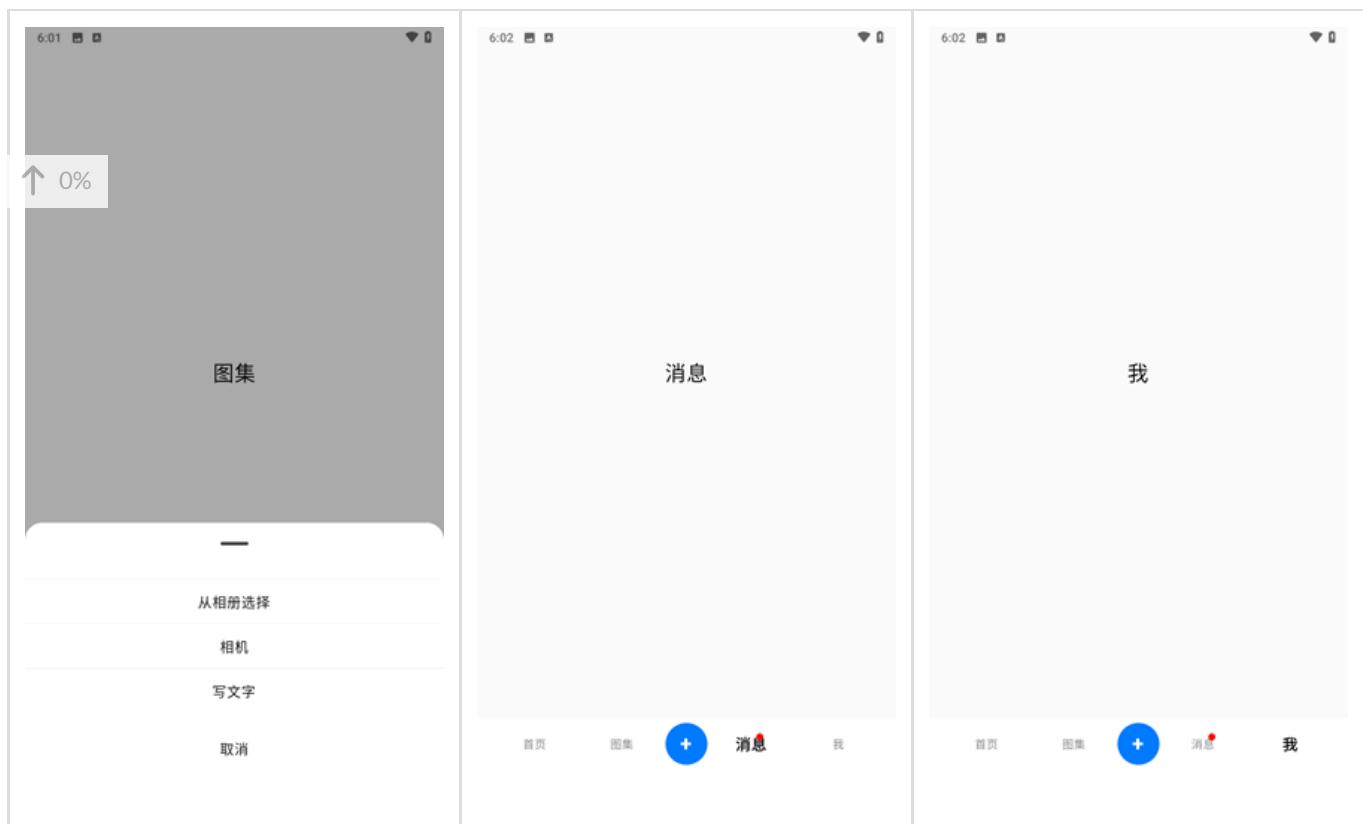
Screen Adaptation: Responsive layout + WindowInsets, adapting to notch screens, system bars and various screen sizes

Build and Dependencies: Gradle Kotlin DSL + Version Catalog + Compose BOM unified management of dependencies and versions

Multi-ABI Support: Reasonably split ABI, improve installation package size and compatibility

### Project Preview





## 2–WanAndroid\_ComposeUI

**Project Ownership:** Personal Project

**Project Name:** WanAndroid\_ComposeUI

**Project Address:** [https://github.com/PGzxc/WanAndroid\\_ComposeUI](https://github.com/PGzxc/WanAndroid_ComposeUI)

**Software Support:** Android

**Development Tools:** Android Studio(2022.2.1)+Java(17.0.6)+Gradle(8.0-bin)+Kotlin(1.7.20)

**Project Description:** This project is an Android ComposeUI open source App based on the open source API of WanAndroid website. With the help of ComposeUI's layout (Row, Column, Box) and components (Text, Button, Card, TabRow, etc.), it quickly implements interface layout and timely view interface preview, uses Okhttp3 + Retrofit2 + Converter-Gson to execute network requests and data encapsulation, and quickly realizes personal App development.

**Functional Modules:** Home, Navigation, Project, Message, Me, Settings, etc.

**Technical Points:**

Build project network access framework based on Okhttp3 + Retrofit2 + Converter-Gson

Automatically save login Cookie based on PersistentCookieJar

Build MVVM framework based on Lifecycle-Viewmodel

Build page navigation based on navigation-compose

Implement pagination layout support based on accompanist-pager

Implement page refresh based on accompanist-swiperefresh

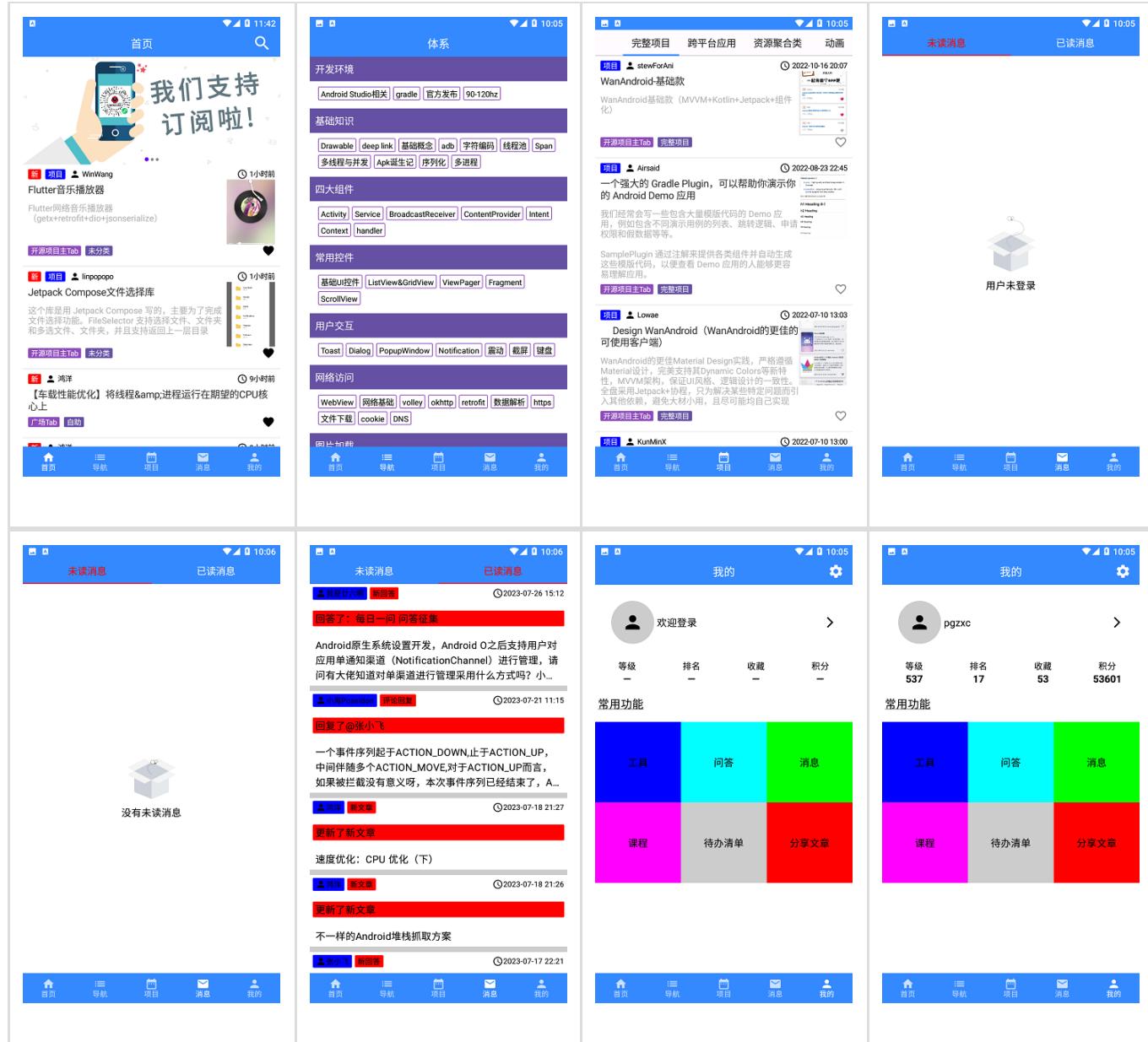
Display web page details based on accompanist-webview

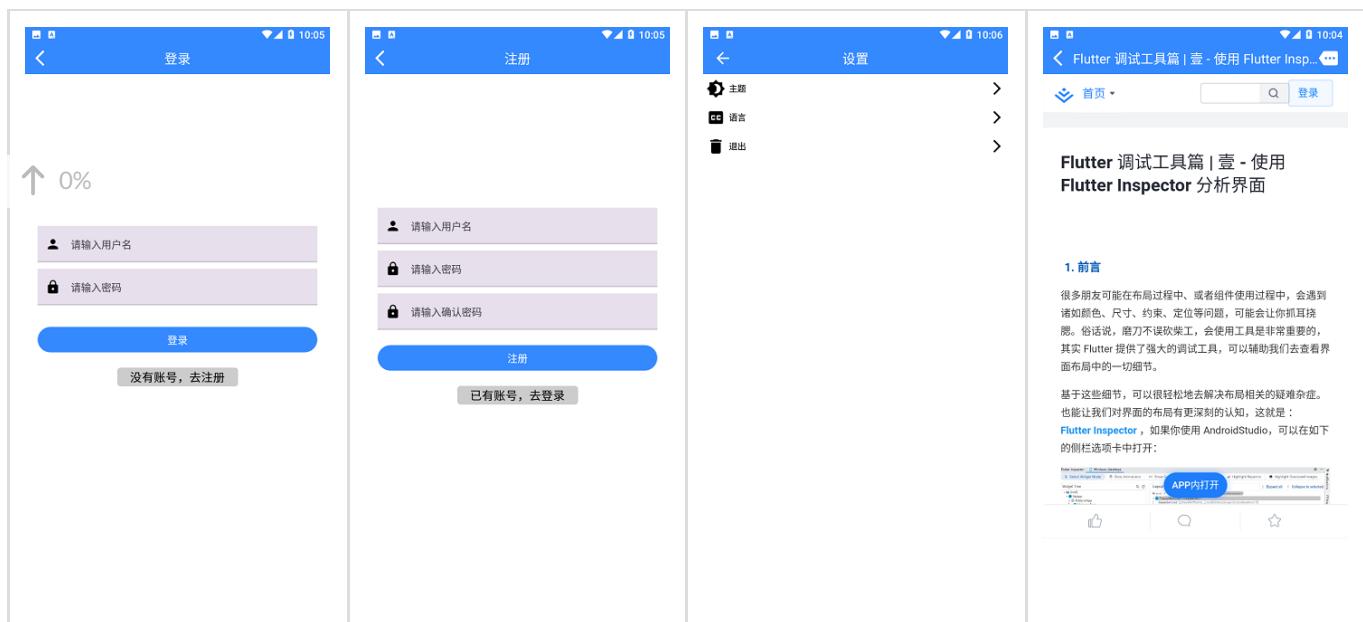
Implement flow layout based on accompanist-flowlayout

Save permanent storage data based on mmkv

material-icons-core, material-icons-extended use system icons

## Project Preview





### 3—Live

**Project Ownership :** Personal Project

**Project Name:** Android Project—Live

**Software Support:** Android 6.0+

**Project Address:** <https://github.com/PGzxc/Live>

**Development Tools:** Android Studio + Github

**Project Description :** Live is a personal open source project, imitating the interaction and functional design of the "Yingke" live streaming platform, covering core modules such as home page, nearby, live streaming, following, and my page. The project implements core functions such as live room chat, bullet screen, gift effects, and supports pull-down refresh and multiple content display layouts.

**Functional Modules:** Home, Nearby, Live, Following, Me, etc.

**Technical Points:**

Build development framework based on Bottom Bar + Fragmentation + DataBinding

Implement push streaming (PLDroidMediaStreaming) and pull streaming (PLDroidPlayer) based on Qiniu Cloud

Implement live room chat based on Huanxin chat room

Implement multiple layouts based on BaseRecycleViewAdapterHelper

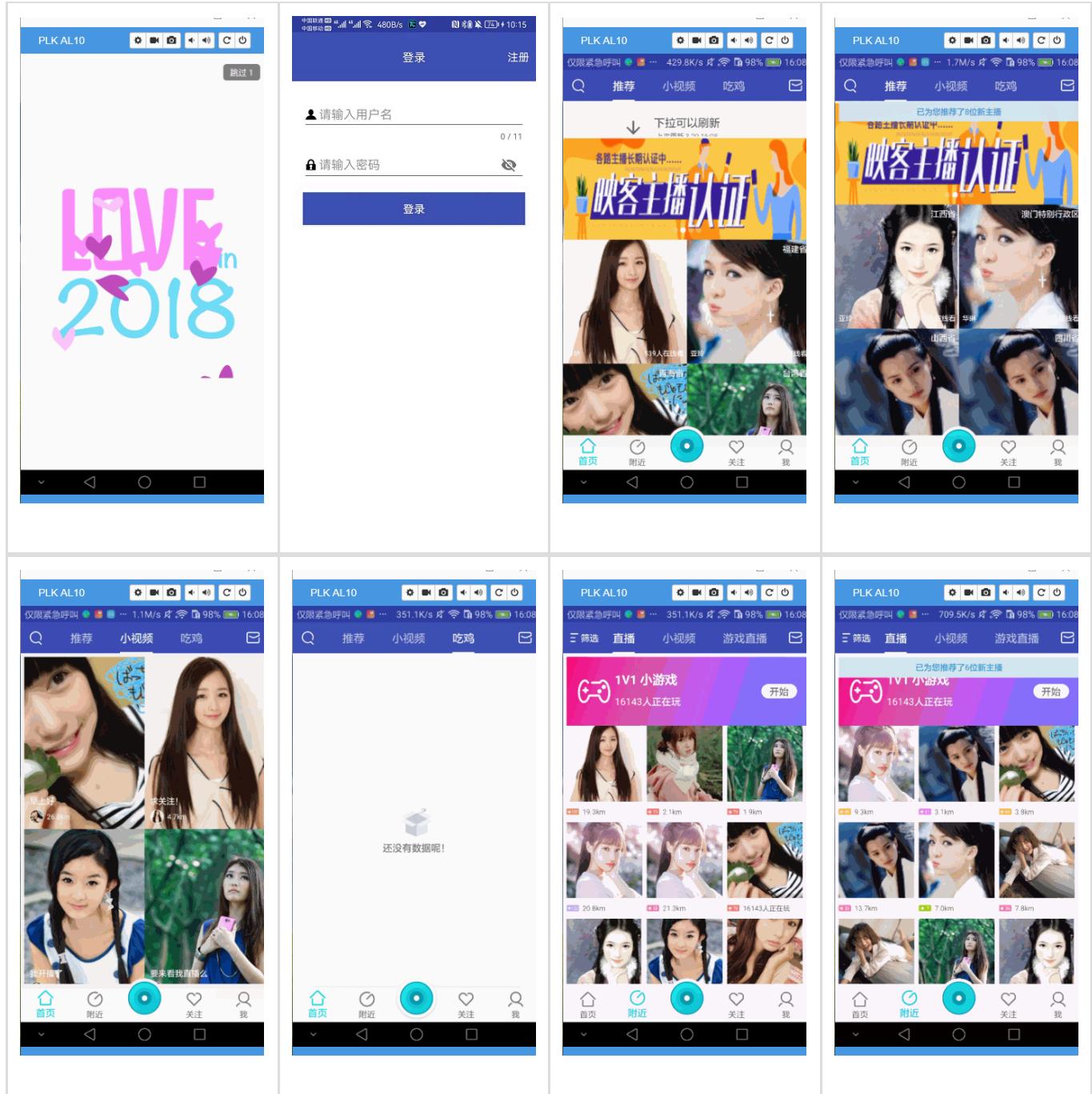
Implement pull-down refresh and pull-up loading based on SmartReRefreshLayout

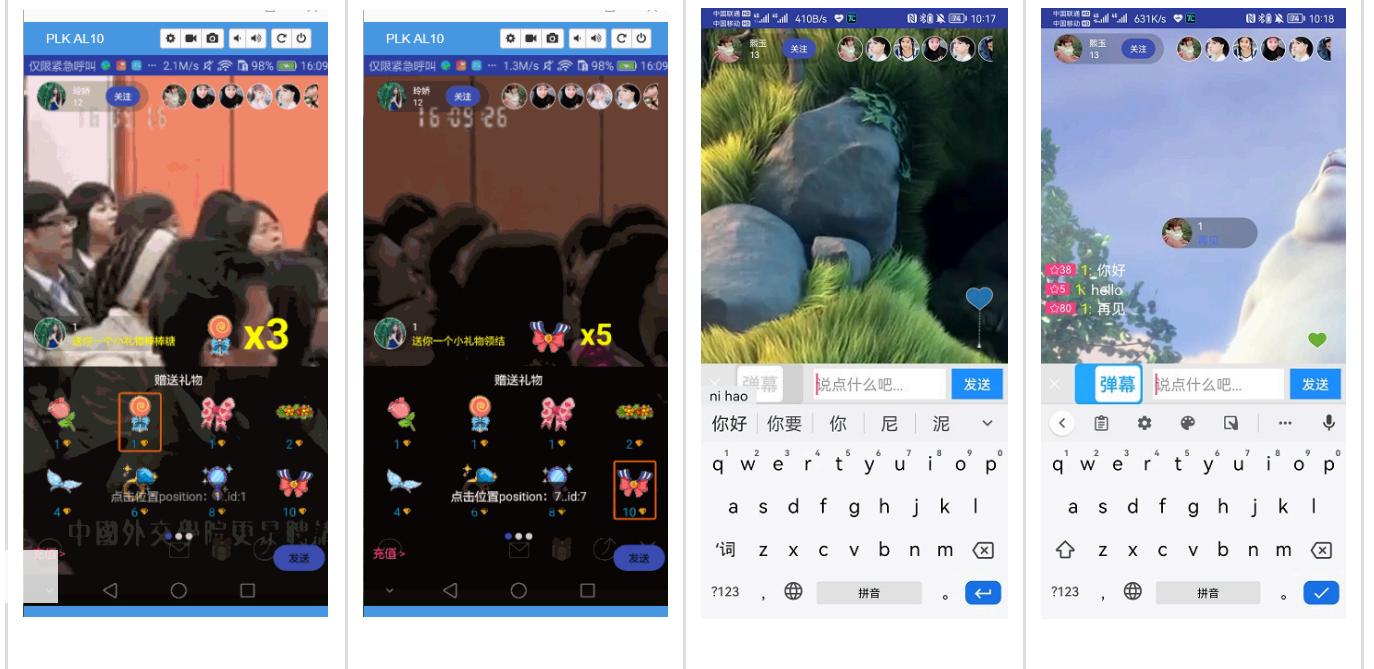
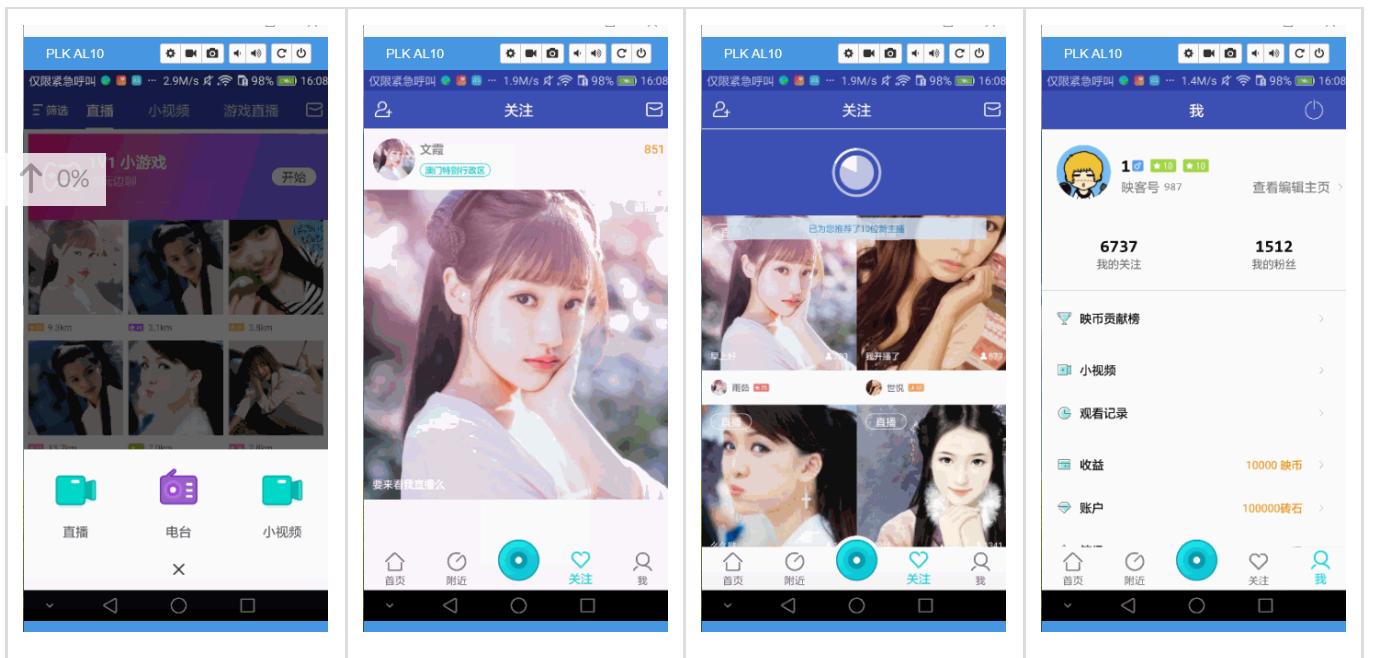
Implement heart animation based on HeartLayout

Implement chat bullet screen and gift effects based on ViewAnimator

Use RAP to simulate interface data

### ↑ 0% Project Preview





### 3. iOS Projects

#### 1 SwiperIOS

**Project Ownership:** Personal Project

**Project Name:** SwiperIOS (Private)

**Project Address:** <https://github.com/PGzxc/SwiperIOS>

**Software Support:** iOS

**Development Tools:** MacOS(15.7.3)+Xcode(26.2)+Swift(6.2.3)+Trae(AI Programming Assistant)

**Project Description:** SwiperIOS is a high-fidelity Douyin + Xiaohongshu native iOS short video and image-text community application, developed based on Swift + SwiftUI, combined with api.apiopen.top free open interface, realizing full-screen video vertical swipe, image waterfall flow browsing, publishing pop-up, message reminders and other social experiences; adopting MVVM architecture and unified network layer encapsulation, dark immersive vision and gesture interaction are close to native applications

**Functional Modules:**

Home: Vertical swipe (Swiper) full-screen video, auto-play when entering the viewport, auto-pause when leaving, and auto-pagination loading at the end

Gallery: Two-column adaptive waterfall flow, dynamic column width and spacing, click on the image to enlarge the full screen and support pinch-to-zoom

Publish: Bottom middle raised publish button triggers pop-up window, providing album/camera/text entry

Message: List page and bottom navigation red dot reminder

Me: Personal page basic structure, can be expanded later with works, collections, drafts and settings

**Technical Points:**

Routing and Navigation: SwiftUI TabView + componentized file structure, implementing top tabs and bottom navigation

Vertical Pagination: Encapsulate UIPageViewController vertical pagination, index synchronization and switching notifications

Custom Components: BottomTabBar middle raised publish button, selected item elastic scaling animation

Architecture and State: MVVM + ObservableObject/@Published, decoupling view and data flow

Network Layer: Encapsulate APIService to uniformly manage requests, underlying APIClient  
based on Alamofire + ObjectMapper

↑ 0%  
Data Mapping: Universal response model + business model JSON mapping, compatible with old/new fields

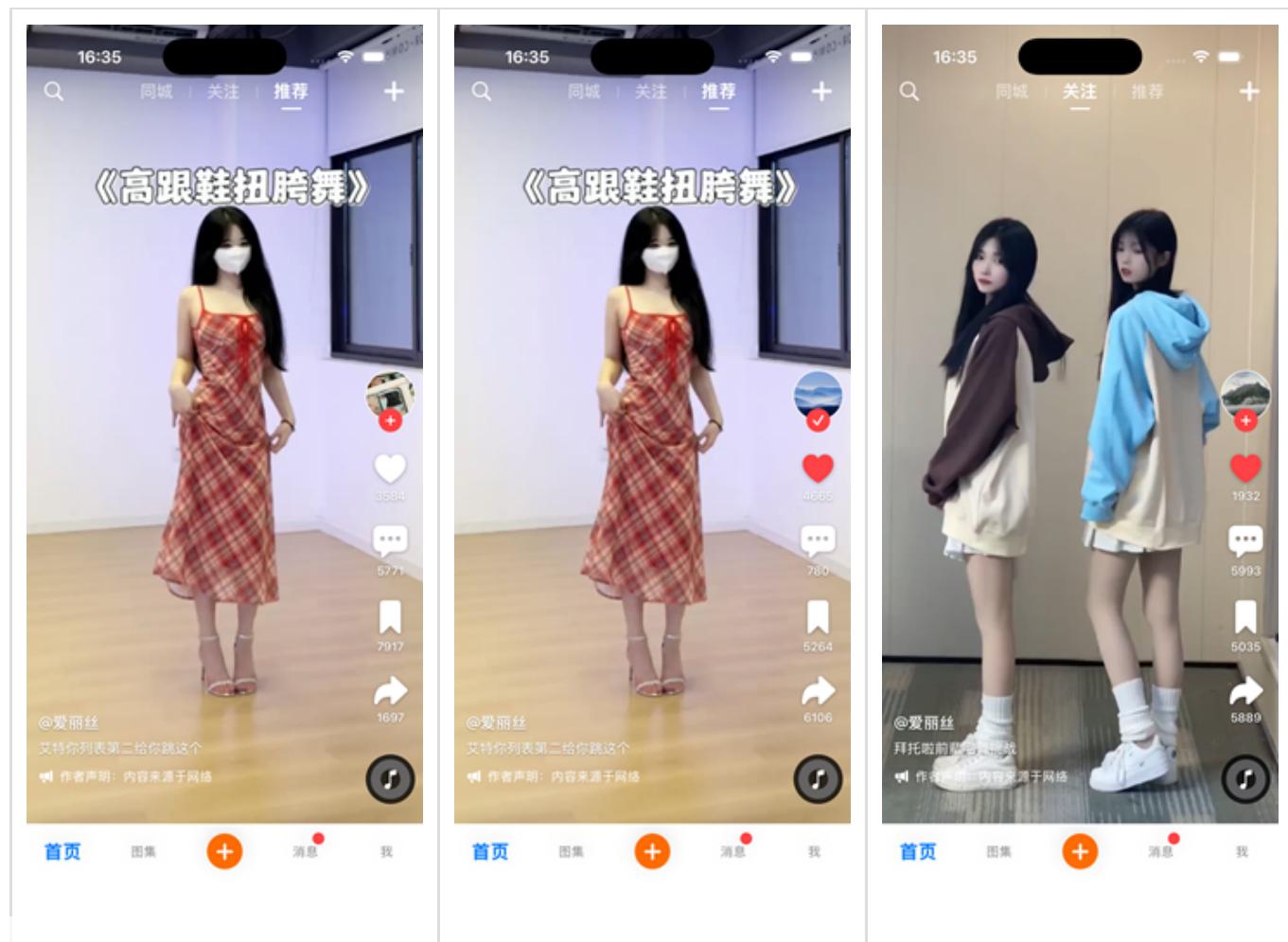
Interface Layout: Gallery waterfall flow dynamic column width and spacing, two-column staggered optimization of visual density

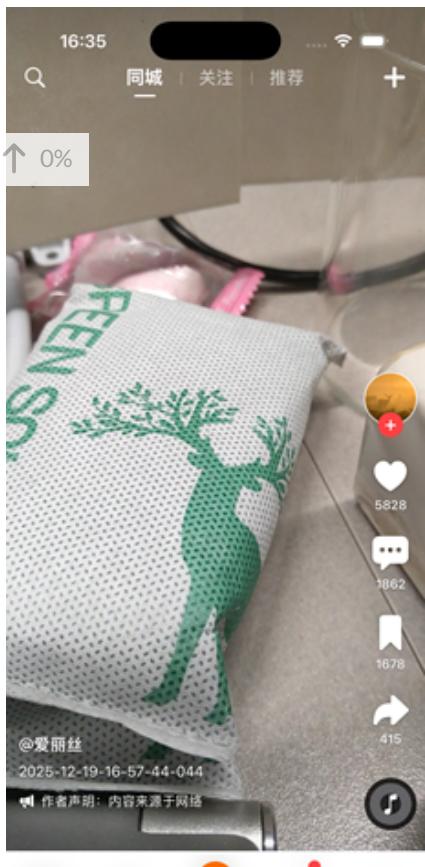
Adaptation and Immersion: GeometryReader + safeAreaInsets responsive layout, content penetration status bar

Video Playback: AVPlayer viewport enter auto-play/leave pause, buffer indication and loop playback

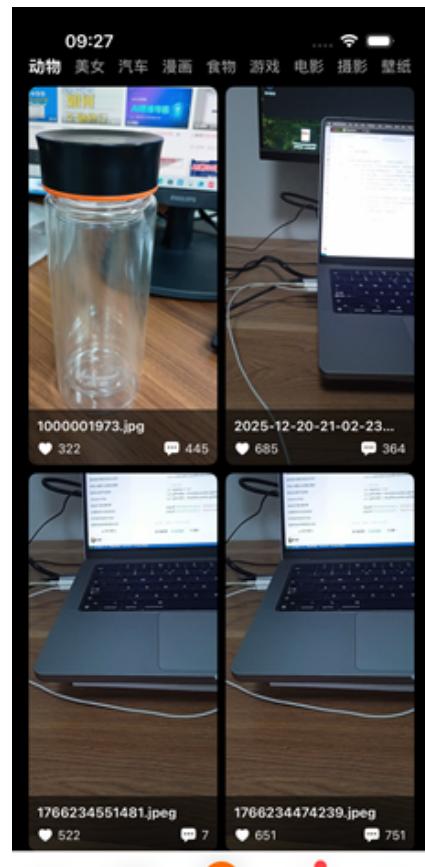
Build and Dependencies: CocoaPods management dependencies, Fastlane scripted multi-environment packaging and publishing

## Project Preview





首页 图集 + 消息 我



首页 图集 + 消息 我



首页 图集 + 消息 我



从相册选择

相机

写文字

取消



消息

首页 图集 + 消息 我



消息 我

## 2–WanAndroid\_SwiftUI

**Project Ownership:** Personal Project

 0% **Name:** WanAndroid\_SwiftUI

**Project Address:** [https://github.com/PGzxc/WanAndroid\\_SwiftUI](https://github.com/PGzxc/WanAndroid_SwiftUI)

**Software Support:** iOS

**Development Tools:** MacOS(13.4)+Xcode(14.3.1)+Swift(5.8.1)

**Project Description :** This project is an iOS application developed based on the open API of WanAndroid website. Using SwiftUI to build the interface, through HStack, VStack, ZStack and other layouts and common components to quickly implement UI construction and real-time preview; the network layer uses Alamofire with AlamofireObjectMapper to implement data requests and model mapping.

**Functional Modules:** Home, Navigation, Project, Message, Me, etc.

**Technical Points:**

Use TabView+NavigationStack to build the main project framework

Encapsulate API interfaces and routing management, including baseURL, methods, paths and parameters, to achieve unified management of network requests

Alamofire sends network requests, combined with AlamofireObjectMapper to parse response data into Swift models

Based on MVVM architecture design, using ObservableObject to simplify data and view binding

Integrate SDWebImageSwiftUI for efficient network image loading and caching

Implement user data persistence storage through AppStorage

Use environmentObject to share and manage global application state

Implement SwiftUI home carousel based on ImageCarousel

**Project Preview**

18:35

玩Android  
开放API

# 一起来做个app吧

△ 小编 2023-08-03 17:53  
【面试秘籍】《2023年Android中高级更全面面试题答案解析》原题命中率超高

**置顶 千货资源 千货资源**

本站发布 △ xiaoyang 2023-06-07 21:01  
每日一问 | Binder是如何做到跨进程权限控...  
<>在framework的代码中，经常看到如下的权限检测的代码：</p>...

**置顶 问答 官方**

本站发布 △ xiaoyang 2023-05-31 21:20  
每日一问 | Java 系列，奇怪的闪退？

**home 导航 项目 消息 我的**

10:00

开发环境

- Android Studio相关 gradle 官方发布
- 90-120Hz

基础知识

- Drawable deep link 基础概念 adb
- 字符编码 线程池 Span
- 多线程与并发 Apk诞生记 序列化
- 多进程

四大组件

- Activity Service BroadcastReceiver
- ContentProvider Intent Context
- handler

常用控件

- 基础UI控件 ListView&GridView
- ViewPager Fragment ScrollView

**home 导航 项目 消息 我的**

18:36

← 开发环境

- Android Studio相关 gradle 官方发布

△ HaiyuKing 2018-06-04 08:18  
【Android Studio安装部署系列】目录

**开发环境 Android Studio相关**

△ 24K纯帅豆 2017-10-31 19:47  
Android Studio3.0更新之路（遇坑必入）

**开发环境 Android Studio相关**

△ 鸿洋 2017-10-27 09:49  
必会 | 手把手带你体验Android Studio 3.0的新功能

**开发环境 Android Studio相关**

△ guiyi712 2017-10-26 23:23  
【翻译版本】Android Studio 3.0 发行说明

**开发环境 Android Studio相关**

△ 恋猫月亮 2017-10-25 23:39  
Android注解快速入门和实用解析

**home 导航 项目 消息 我的**

10:06

- 完整项目 跨平台应用 资源聚合类

△ WinWang 2024-01-09 09:39  
鸿蒙Harmony版本开眼App  
华为鸿蒙Harmony开眼App  
(项目整体基于Api9+Stage...)

**开源项目主 Tab 完整项目**

△ hefengbao 2024-01-09 09:29  
『京墨』开源免费的古诗词文  
(名句)、歇后语、成语、...  
平台支持  
Android 8 及以上...

**开源项目主 Tab 完整项目**

△ fmtjava 2024-01-09 09:28  
一款基于 Jetpack Compose  
实现的精美仿开眼视频App...  
一款基于 Jetpack Compose 实现的精美仿开眼视频App提...

**开源项目主 Tab 完整项目**

**home 导航 项目 消息 我的**

11:32

未读消息列表 已读消息列表

△ yndongyong 新回答 ① 1天前  
回答了：每日一问 问答征集  
奔溃异常的每一行最后为什么会有带有TbsSdk.java的字眼，只集成了Sentry这一类奔溃捕获框架，google了TbsSdk也没有搜索出结果，只搜索到腾讯tbs服务，但是没有继承这一框架。通过./gradlew app:dependencies --scan --configuration normalDebugRuntimeClasspath分析了第三方依赖...

△ 404699221 谈论回复 ② 2023-06-12 16:08  
回复了@404699221  
有没有什么好的思路，或者有好的项目可以参考呢？

△ 404699221 新回答 ② 2023-06-12 16:07  
回答了：每日一问 问答征集  
最近在做html富文本渲染的内容。有多组html图文混排的富文本需要渲染，图片尺寸不一定，可能满宽也可能只有几十px。可能是比较老的内容了，找的很多richText都停止了维护，选用的HtmlSpanner也无法满足图片尺寸自测量的要求。甚至出现了严重的渲染延迟问题

**home 导航 项目 消息 我的**

11:32

未读消息列表 已读消息列表

△ yndongyong 新回答 ① 1天前  
回答了：每日一问 问答征集  
奔溃异常的每一行最后为什么会有带有TbsSdk.java的字眼，只集成了Sentry这一类奔溃捕获框架，google了TbsSdk也没有搜索出结果，只搜索到腾讯tbs服务，但是没有继承这一框架。通过./gradlew app:dependencies --scan --configuration normalDebugRuntimeClasspath分析了第三方依赖...

△ 404699221 谈论回复 ② 2023-06-12 16:08  
回复了@404699221  
有没有什么好的思路，或者有好的项目可以参考呢？

△ 404699221 新回答 ② 2023-06-12 16:07  
回答了：每日一问 问答征集  
最近在做html富文本渲染的内容。有多组html图文混排的富文本需要渲染，图片尺寸不一定，可能满宽也可能只有几十px。可能是比较老的内容了，找的很多richText都停止了维护，选用的HtmlSpanner也无法满足图片尺寸自测量的要求。甚至出现了严重的渲染延迟问题

**home 导航 项目 消息 我的**

11:37

Pgzxc.com >

排名 19 收藏 26707 等级 513 积分 51214

**常用功能**

问答	课程	消息
待办清单	工具	分享项目
分享文章	公众号	

回答(141)

lijbest@foxmail.com 2021-04-02 09:27  
apk体积相比之前增加了500KB,资源没变,依赖也没变,只是拆分了module,修改了一些build.gradle的配置.在多dex的情况下,如何分析这种问题呢?或者是大家有什么好的方法分析dex映射包大小的问题呢?

鸿洋 : @lijbest@foxmail.com 2021-04-02 14:58  
先dilt看哪块变多了,大概率是dex文件变多了,R文件增加.例如:A模块有1000个资源,会生成R文件,内部包含1000个资源id;假设现在B从不依赖A,改依赖B,那么B的R文件里面

**home 导航 项目 消息 我的**



### 3–ZhiHuSwiftUI

**Project Ownership:** Personal Project

**Project Name:** ZhiHuSwiftUI (Open Source + AI)

**Project Address:** <https://github.com/PGzxc/ZhiHuSwiftUI>

**Software Support:** iOS

**Development Tools:** MacOS(15.3.2)+Xcode(16.2)+Swift(6.0.3)

**Project Description :** This is an iOS version of the Zhihu community client developed with SwiftUI, adopting MVVM architecture, with complete community functions. The homepage can view post lists and details; the market column displays topics and columns; the publish button supports users to publish articles and questions; the message list column presents interactive information such as likes, comments, follows, etc.; there is also a personal center to facilitate users to manage personal affairs.

**Functional Modules:** Home, Market, Publish, Message, Me, etc.

**Technical Points:**

Use TabView+NavigationStack to build the main project framework

Adopt MVVM architecture (Model + View + ViewModel) to simplify the decoupling of data and view

Use URLSession and async/await to implement efficient network requests and asynchronous programming

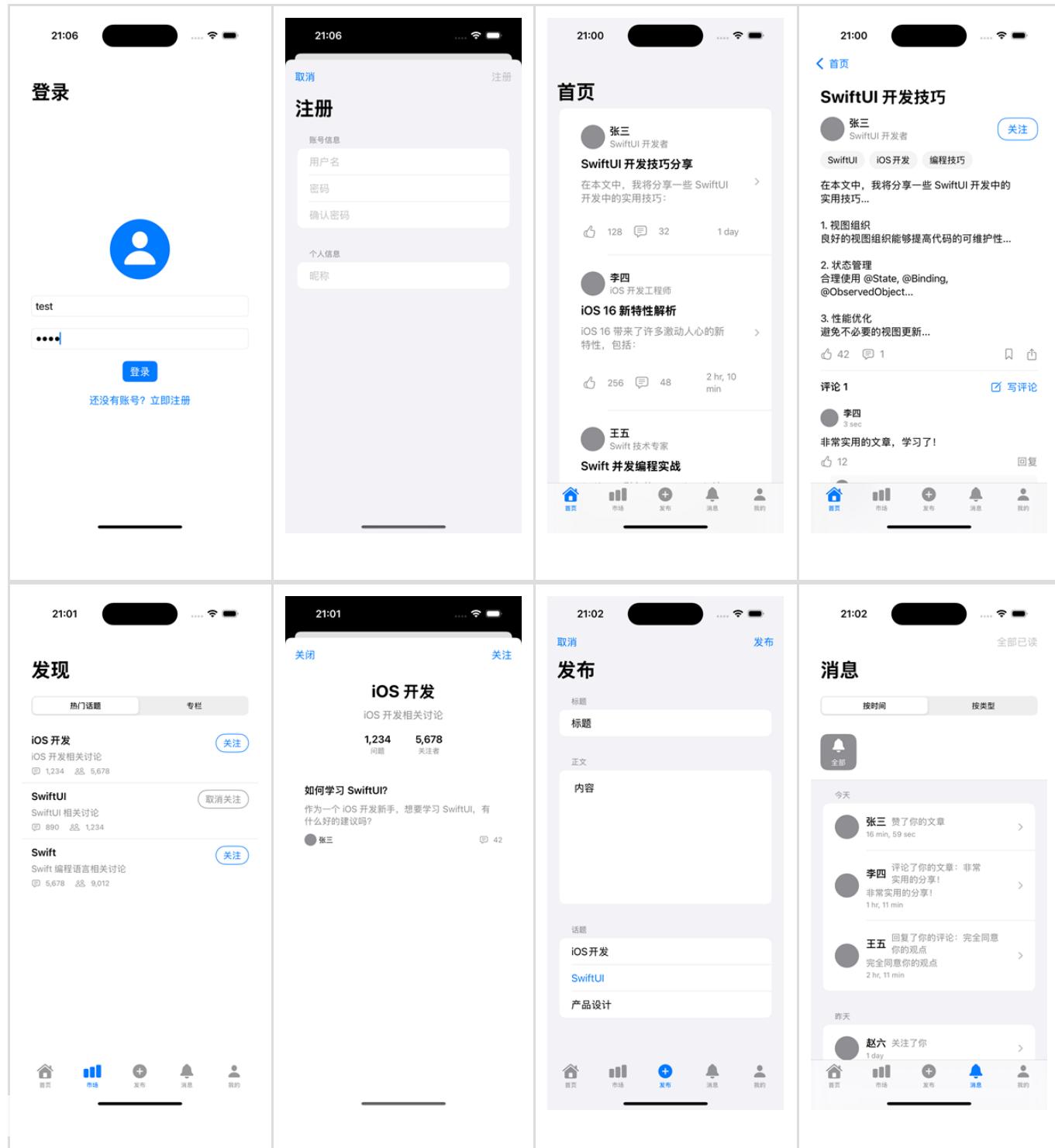
Implement data persistence storage through UserDefaults

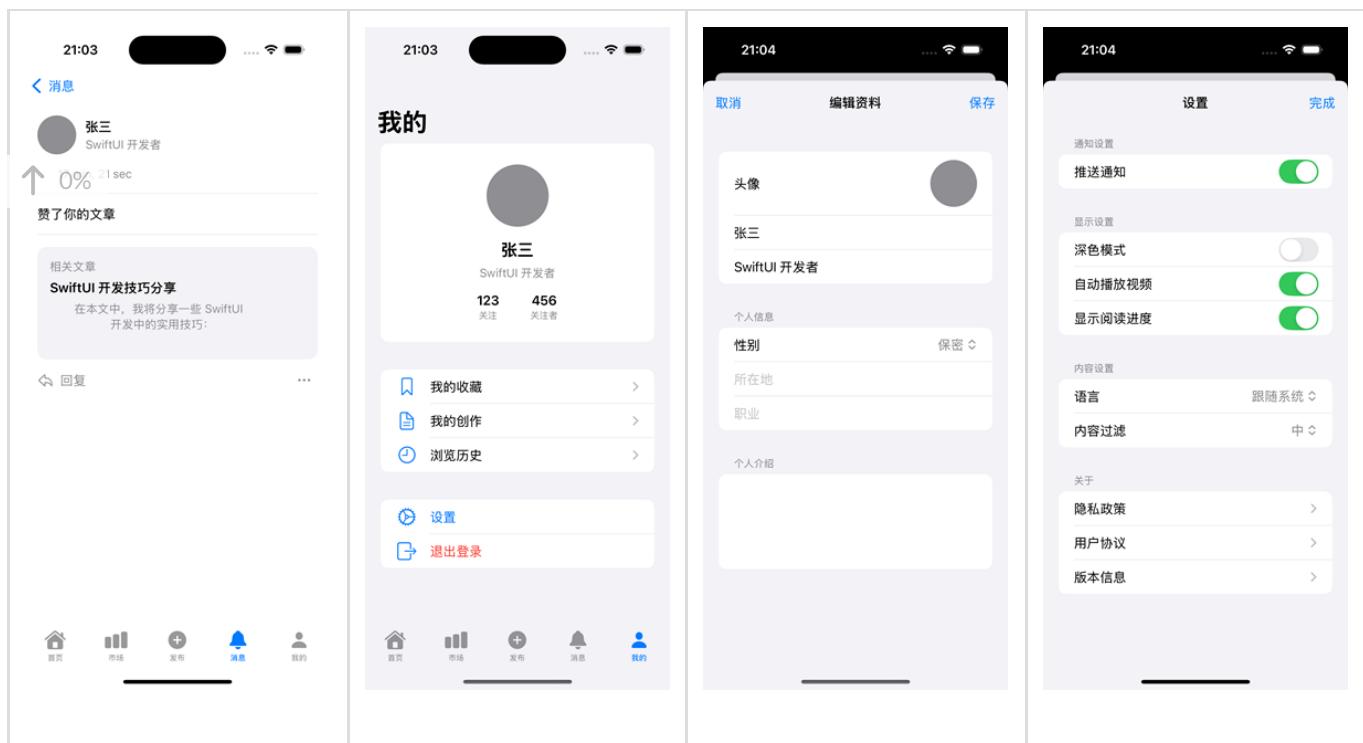
Use @StateObject, @Published, @EnvironmentObject for state management and data sharing

Custom component View to improve code reusability

Mock simulate temporary data

## Project Preview





## 4. Flutter Projects

### 1—SwiperFlutter

**Project Ownership :** Personal Project

**Project Name:** SwiperFlutter(Private)

**Project Address:** <https://github.com/PGzxc/SwiperFlutter>

**Software Support:** Android+IOS+Web+Windows+Mac+Linux

**Development Tools:** IDEA(2025.3.1)+Flutter(3.38.5)+Tera(AI Programming Assistant)

**Project Description :** Cross-platform short video + image-text community application independently developed based on Flutter framework, supporting Android / iOS / Web / Windows / macOS / Linux six-end operation, one set of code multi-platform deployment; product form and interactive experience benchmarking Douyin / Xiaohongshu, implementing video stream playback, image waterfall flow browsing and complete user interaction system, with modern UI and full-platform responsive adaptation capabilities.

#### Functional Modules :

**Home:** Douyin-style vertical video stream, supporting up-down swipe switching, auto-playback and gesture interaction

**Gallery:** Image waterfall flow display, supporting category browsing and pagination loading

Publish: Bottom unified publishing entrance, supporting multi-type content publishing

Message: System notifications and user interaction messages

Me: Personal information management and personal content display

### Technical Points:

Cross-platform Development: Based on Flutter + Dart, one set of code multi-end adaptation

Architecture Design: Adopts MVVM architecture, UI and business logic decoupling, improving code maintainability

State Management: Uses Riverpod to manage global and page state, ensuring state predictable and testable

Network and Data: Dio + interceptor + data cache, combined with json\_serializable automatic serialization

Video Playback: Based on video\_player, supporting auto-playback, gesture control and lifecycle management

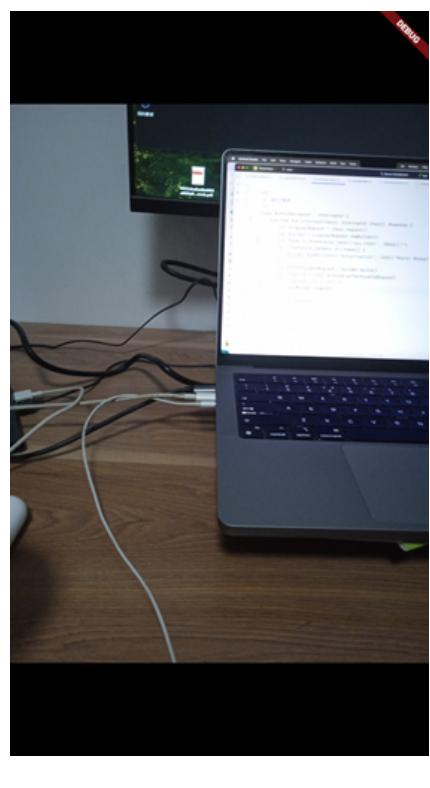
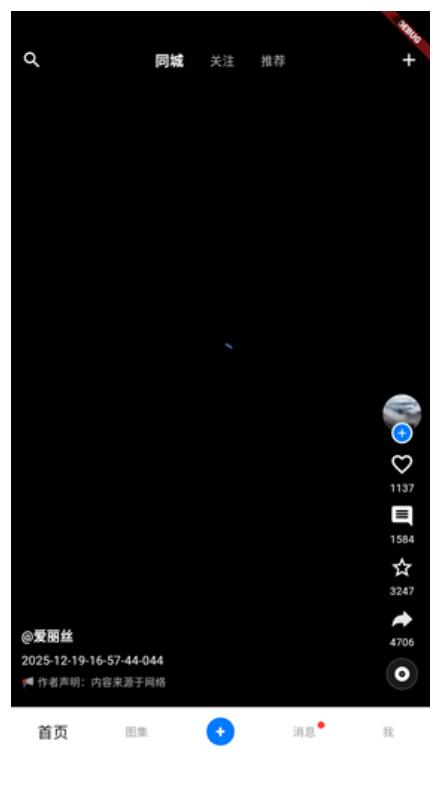
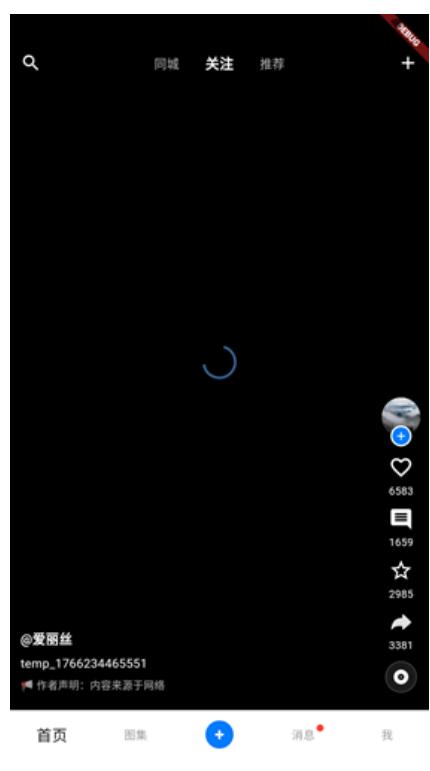
Image Optimization: Uses cached\_network\_image to implement image caching, improving list scrolling performance

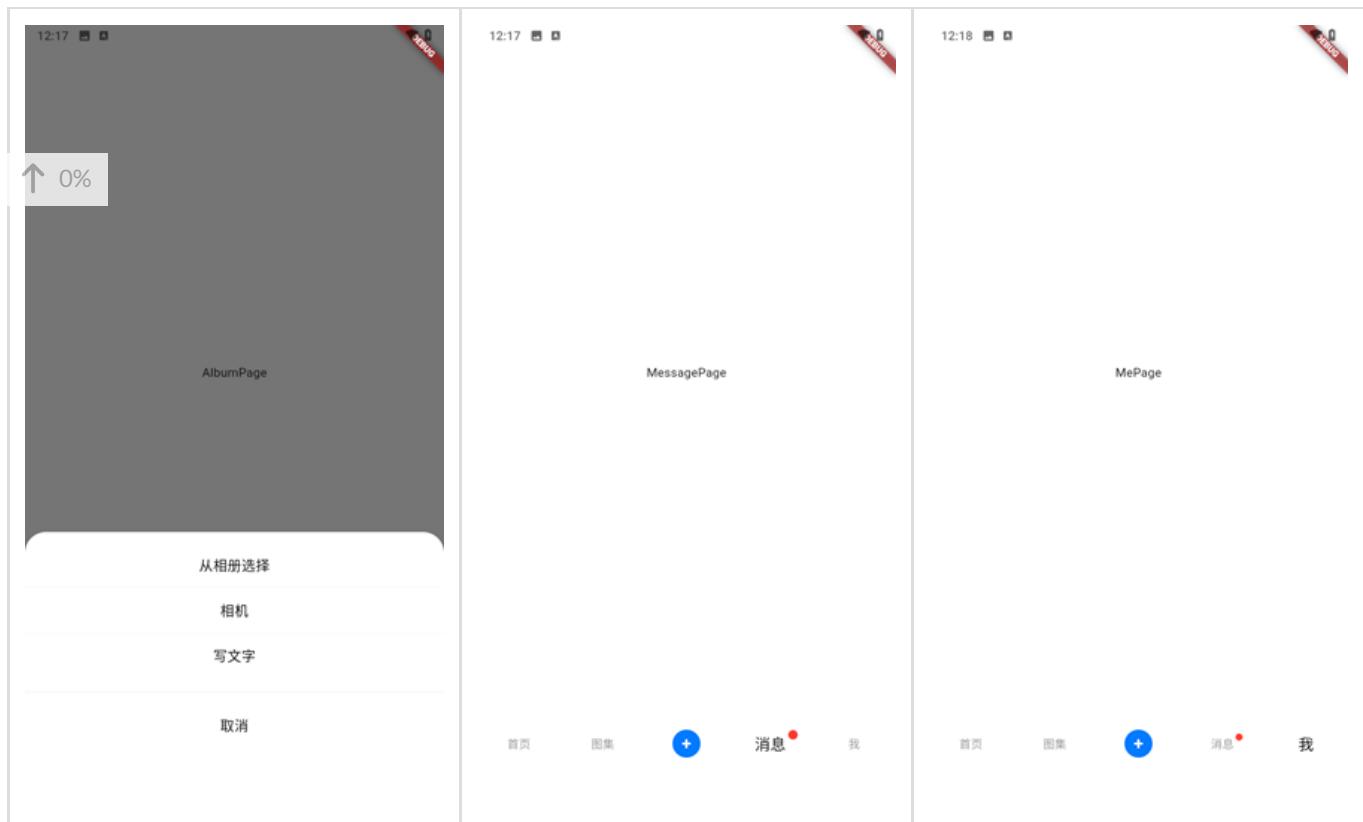
Waterfall Layout: Implements image waterfall flow display through flutter\_staggered\_grid\_view

UI Components: Uses flutter\_svg to support vector icons, building modern UI style

Screen Adaptation: Adopts responsive layout scheme, adapting to different screen sizes and resolutions

### Project Preview





## 2–Flutter-WanAndroid

**Project Ownership :** Personal Project

**Project Name:** Flutter-wanandroid(Open Source)

**Project Address:** [https://github.com/PGzxc/flutter\\_wanandroid](https://github.com/PGzxc/flutter_wanandroid)

**Software Support:** Android+IOS

**Development Tools:** IDEA Community Edition 2022.1+Flutter(3.0.2)

**Project Description:** Flutter-WanAndroid is an open source mobile application developed based on the open API of WanAndroid website, aiming to provide users with convenient article browsing, project classification, knowledge system and other functional experiences.

**Functional Modules:** Home, Navigation, Project, Message, Me, Language, Theme

**Technical Points:**

Build development framework based on GetX+getWidget

Build network requests based on GetX-GetConnect

Encapsulate network return results based on json\_serializable+build\_runner

Save user login results and language/theme settings based on shared\_preference

Implement pull-down refresh and pull-up loading based on flutter\_pulldownrefresh

Implement preview effect display during network requests based on shimmer

Display web page effects based on webview-flutter

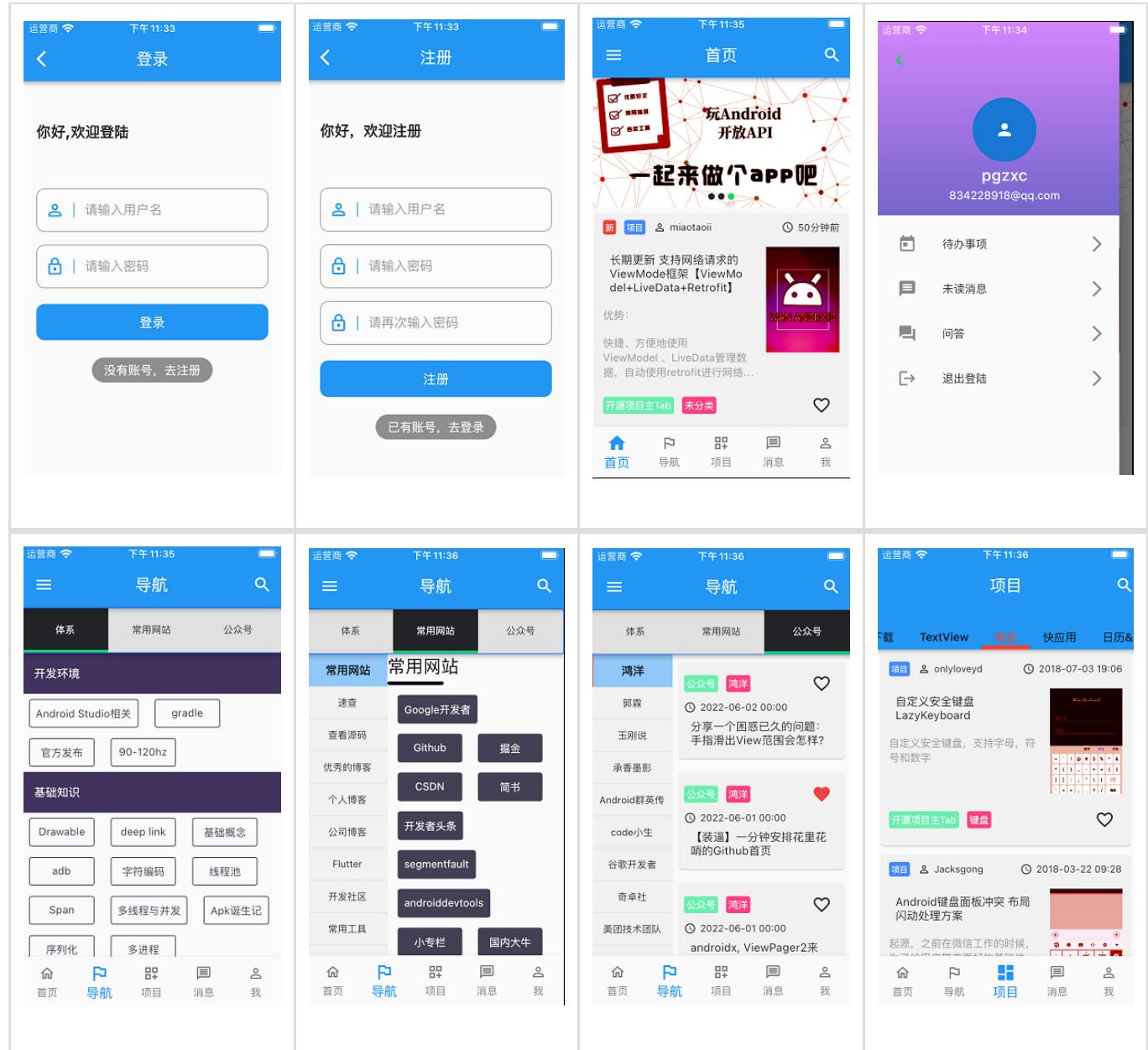
Set project startup default screen based on flutter\_native\_splash to prevent white screen

Cache list items based on KeepAliveWrapper to prevent multiple loading

Display unread messages based on Google component getWidget-badges

Use flutter\_screenutil for screen adaptation

## Project Preview





### 3—Flutter-zhihu-getx

**Project Ownership:** Personal Project

**Project Name:** Flutter\_zhihu\_getx(Open Source)

**Project Address:** [https://github.com/PGzxc/flutter\\_zhihu\\_getx](https://github.com/PGzxc/flutter_zhihu_getx)

**Software Support:** Android+IOS

**Development Tools:** IDEA Community Edition 2022.2.4+Flutter(3.7.3)

**Project Description :** This project is a cross-platform open source project imitating Zhihu App, built with Flutter, supporting both Android and iOS dual-end operation. The project is based on GetX state management framework, combined with multiple open source UI component libraries to implement core modules such as home page, recommendation, following, Q&A, etc.

## Functional Modules: Home, Following, Publish, Membership, My

### Technical Points:

↑ 0% Build project development framework based on GetX+nav\_sheet

Separate view View and controller Controller based on GetX, and combine them through bindings

Implement pull-down refresh and pull-up loading based on flutter\_pulldownrefresh

Implement staggered image list display based on staggered\_grid\_view

Implement rich text editor based on flutter\_quill

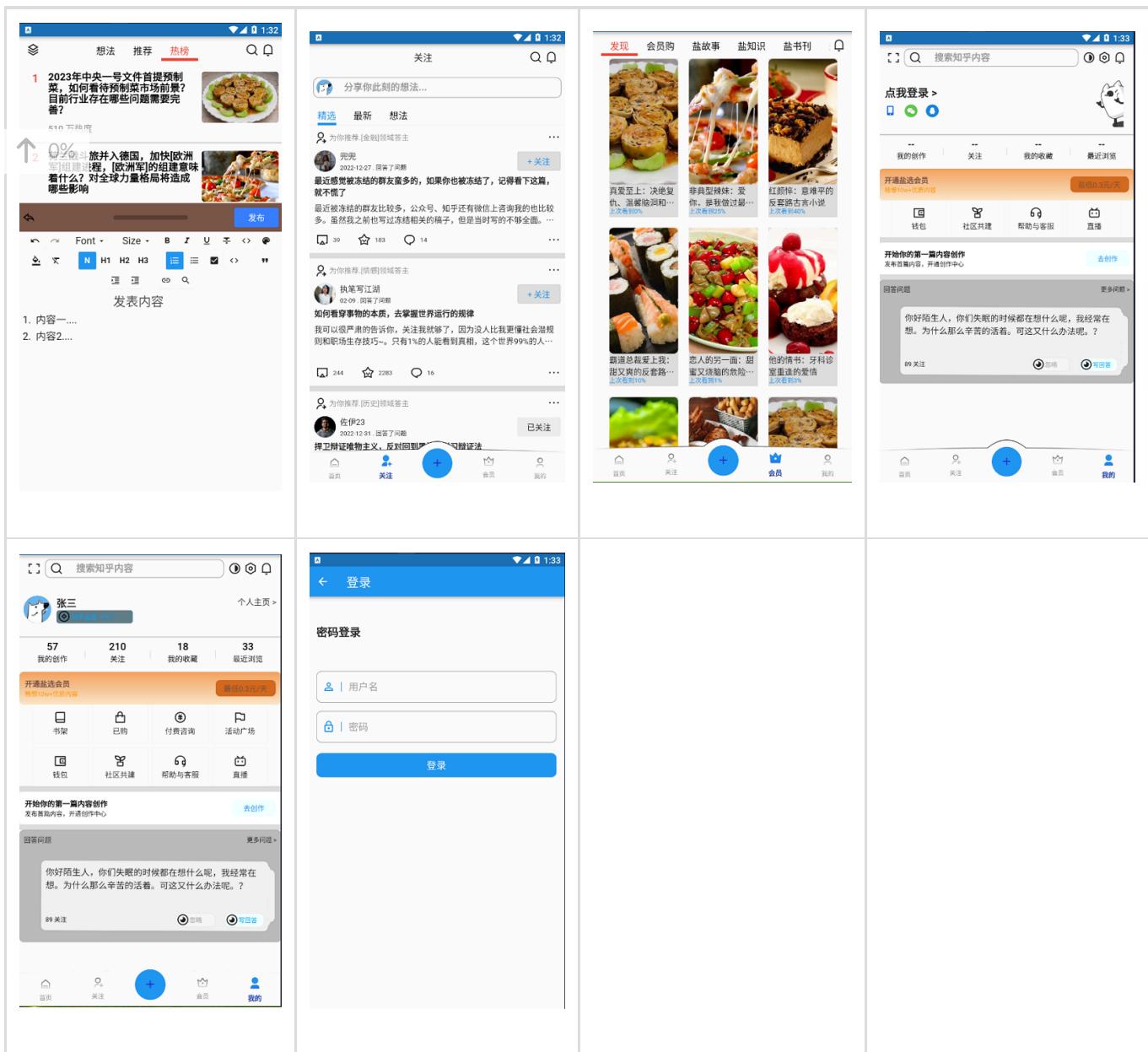
Implement swipe to remove previous card to get next card information based on flutter\_tindercard

Cache list items based on KeepAliveWrapper to prevent multiple loading

Implement icons and components in the project based on getwidget, remixicon, font\_awesome\_flutter

### Project Preview





## 5. React Native Projects

### 1—SwiperRN

**Project Ownership:** Personal Project

**Project Name:** SwiperRN (Private)

**Project Address:** <https://github.com/PGzxc/SwiperRN>

**Software Support:** Android+iOS+Web

**Development Tools :** VS      **Code+Trae(AI)**      **Programming**

Assistant)+Java(17.0.15)+Node(25.2.1)+Yarn(1.22.22)+react-native(0.81.5)+Expo(54)

**Project Description :** SwiperRN is a high-fidelity Douyin + Xiaohongshu cross-platform short video & image-text community application, developed based on React Native + Expo ecosystem,

combined with api.apiope.top free open interface, realizing full-screen video vertical swipe, image note waterfall flow, dynamic publishing, message notification and other complete social experiences. Supports iOS, Android, Web three ends truly write once run everywhere, visual effects and interactive experience close to native applications.

### Functional Modules:

Home: Douyin-style full-screen video vertical swipe (Swiper), auto-play + gesture pause, support pull-down refresh, pull-up load more

Gallery: Xiaohongshu-style two-column/three-column adaptive image waterfall flow, dynamic height, click to enlarge to view details

Publish: Support shooting/album selection of videos, images, multi-image upload, rich text title + topic tags, call interface one-click publish

Message: Likes, comments, follows, system notification list, real-time red dot reminder, can jump to corresponding content

Me: Personal homepage grid/list display works, favorites, drafts, settings and night mode switching

### Technical Points:

Routing and Navigation: Based on Expo Router to implement file system routing system

Custom Components: BottomTabBar middle raised button and dynamic scaling effect

Type System: Based on TypeScript for type definition, ensuring code quality and maintainability

Network Request: Encapsulate ApiService (fetch/axios) to uniformly manage network requests

UI Layout: Implement image waterfall flow layout, dynamically calculate column height and image position

Gesture Interaction: React Native Gesture Handler implements swipe switching

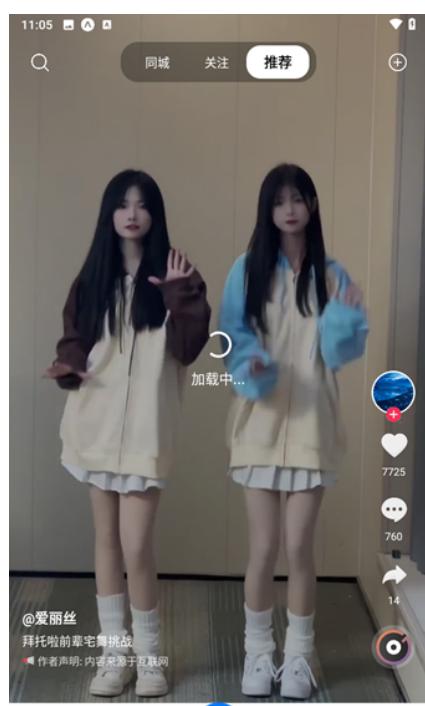
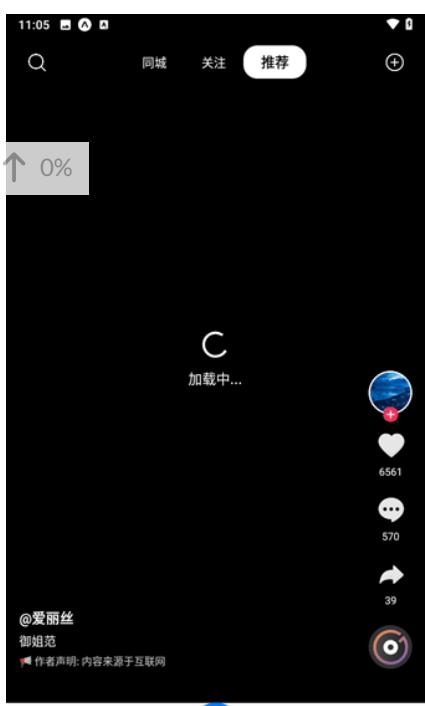
Animation Effects: React Native Animated and Reanimated high-performance animations

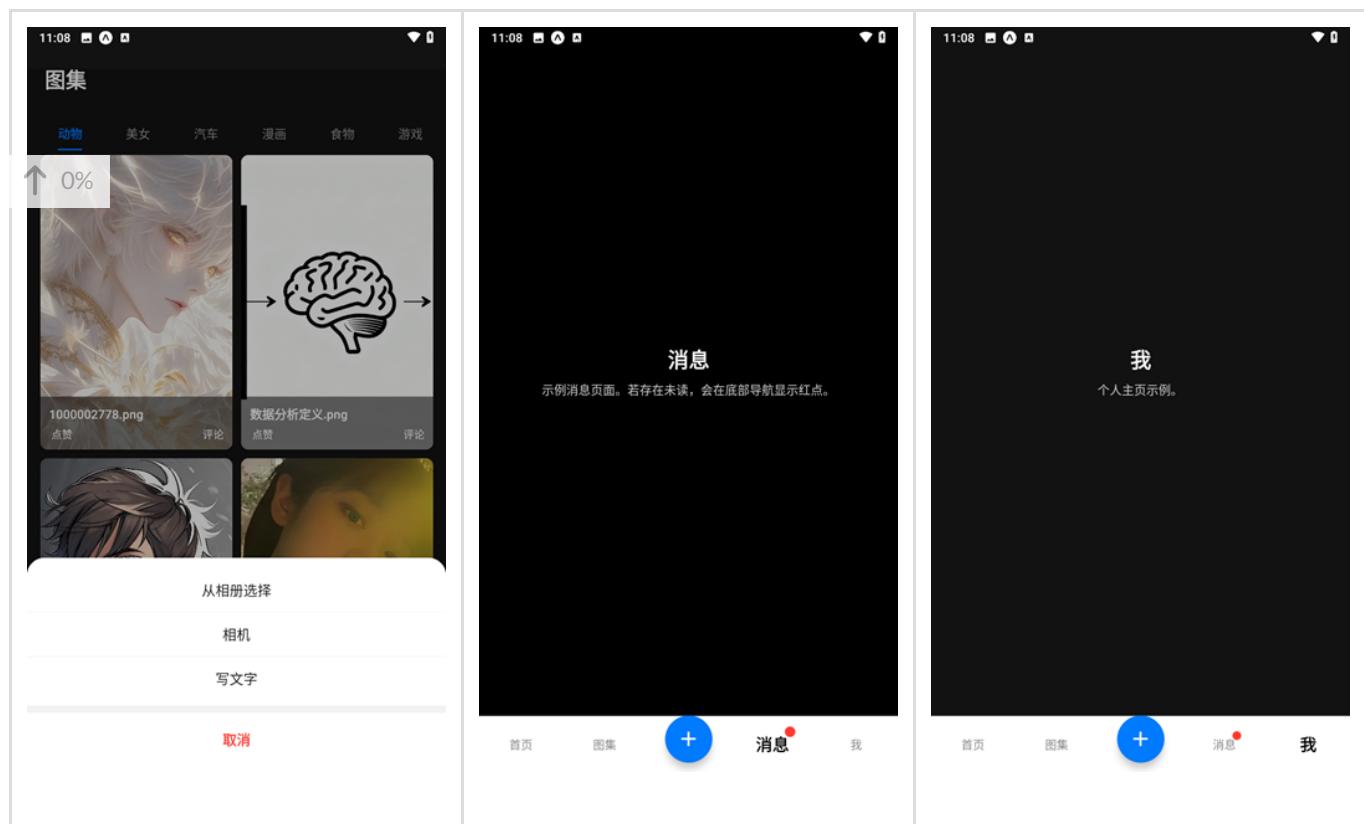
Adaptation Scheme: SafeAreaContext and Dimensions API responsive layout

Video Playback: expo-av + FlatList implements "enter viewport auto-play + leave pause", preload next video

Build and Publish: EAS Build multi-environment application packaging and publishing

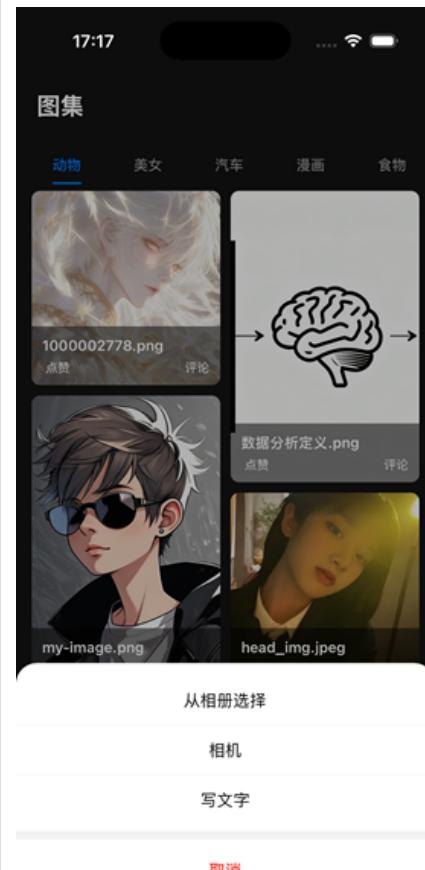
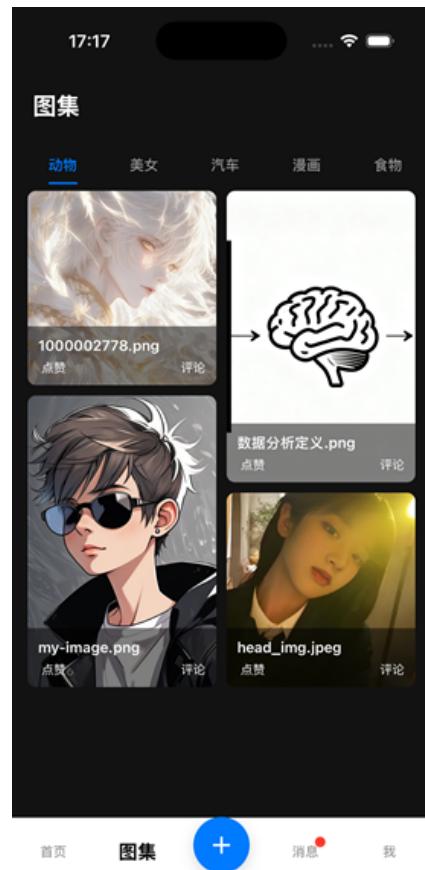
### Project Preview-Android





## Project Preview-iOS





## 2–WanAndroidRN

**Project Ownership:** Personal Project

 0% : **Name:** WanAndroidRN (Open Source)

**Project Address:** <https://github.com/PGzxc/WanAndroidRN>

**Software Support:** Android+iOS

**Development Tools :** IntelliJ IDEA+Java(11.0.19)+Node(18.18.2)+Yarn(1.22.19)+react-native(0.72.6)+Expo(49)

**Project Description:** This project is a React Native open source App built based on the open API of WanAndroid website. With the help of Expo Go development tools, combined with @ant-design/react-native Ant Financial UI library, it realizes cross-platform support for Android and iOS systems, making it convenient for users to access the website.

**Functional Modules:** Home, Navigation, Project, Message, Me, etc.

**Technical Points:**

Use React Navigation to build bottom navigation framework, realizing smooth page switching

Adopt Fetch API for network requests, use Promise to simplify asynchronous process

Use React Hooks (useEffect + useState) to implement data fetching and state updates

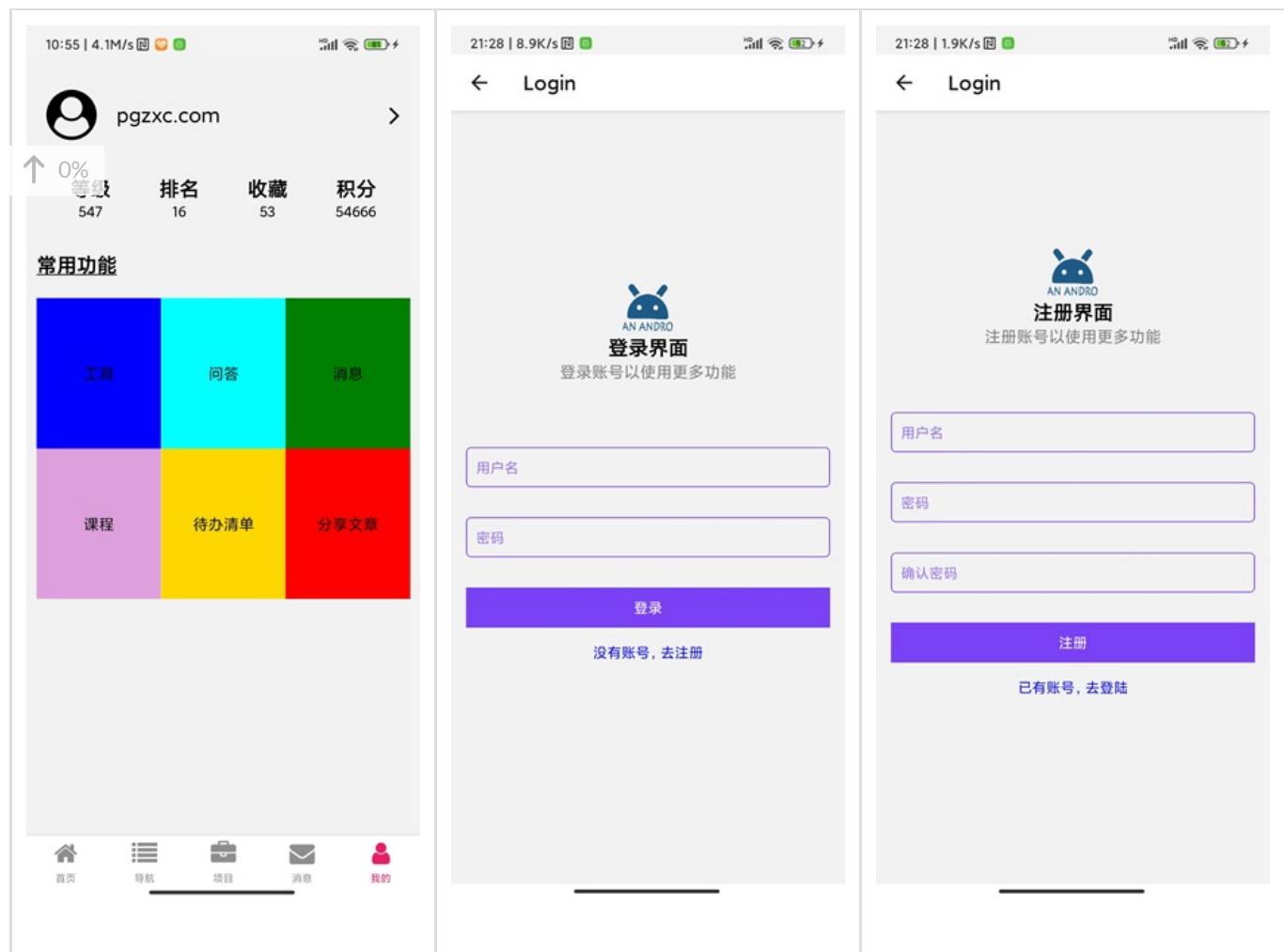
Design reusable custom components to improve code maintainability and development efficiency

Implement carousel effect based on ant-design/react-native-Carousel

Implement tab switching based on ant-design/react-native-Tabs

**Project Preview**





### 3—ZhiHuRN

**Project Ownership:** Personal Project

**Project Name:** ZhiHuRN (Open Source + AI)

**Project Address:** <https://github.com/PGzxc/ZhiHuRN>

**Software Support:** Android+iOS

**Development Tools :** IntelliJ IDEA+Java(11.0.19)+Node(22.14.0)+Yarn(1.22.22)+react-native(0.76.7)+Expo(52)

**Project Description :** This project is a Zhihu-like mobile application developed based on React Native. It has implemented many core page functions, including login and registration, home page post browsing and publishing, post search on the discovery page, search history display and hot topic presentation, message notification, and personal information management.

**Functional Modules:** Login Registration, Home, Discovery, Notification, Me

**Technical Points:**

Use React Navigation to build bottom navigation framework, realizing smooth page switching

Based on Redux for global state management, ensuring data consistency and responsiveness

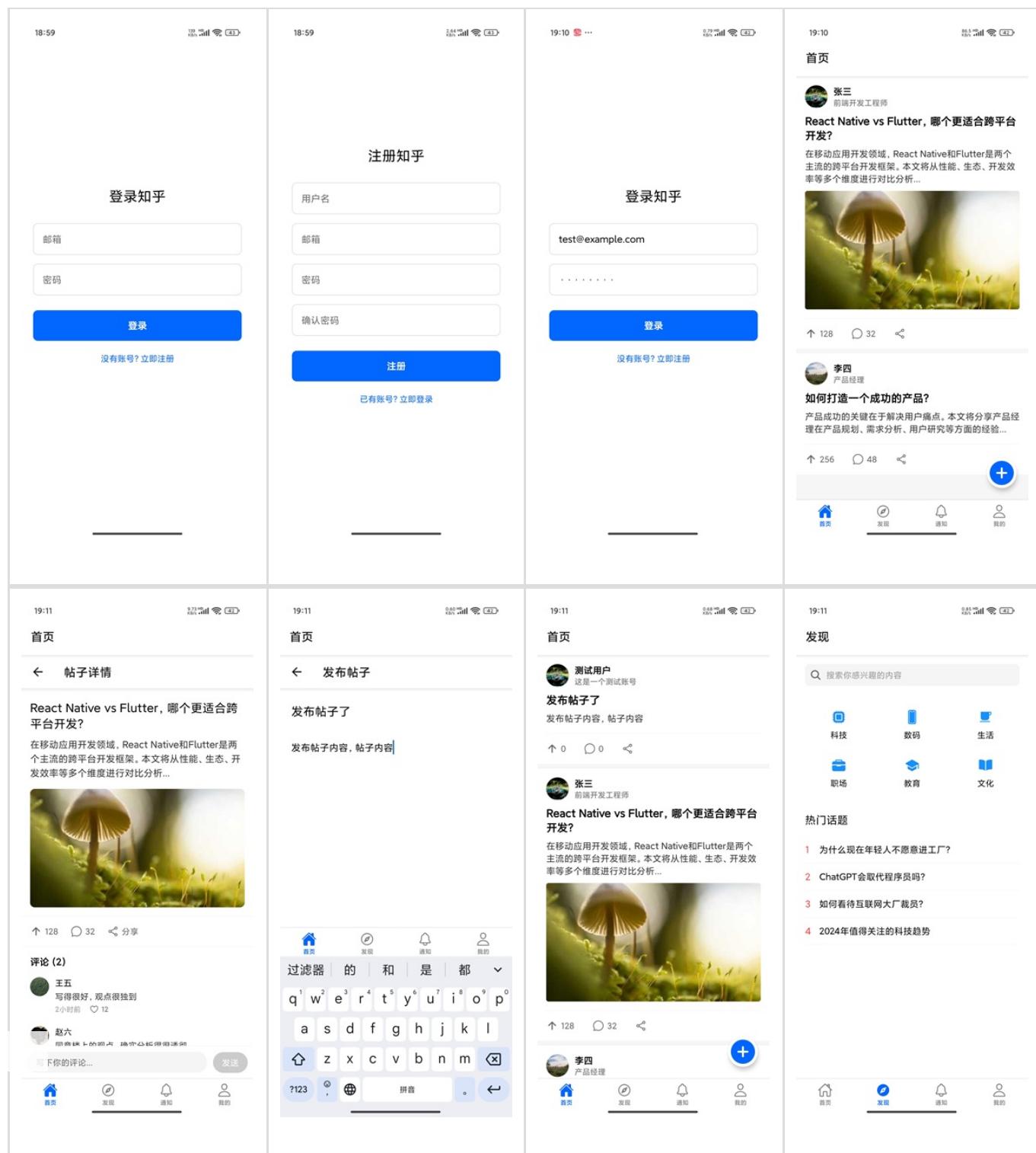
Design and reuse custom components to improve code reuse rate and maintainability

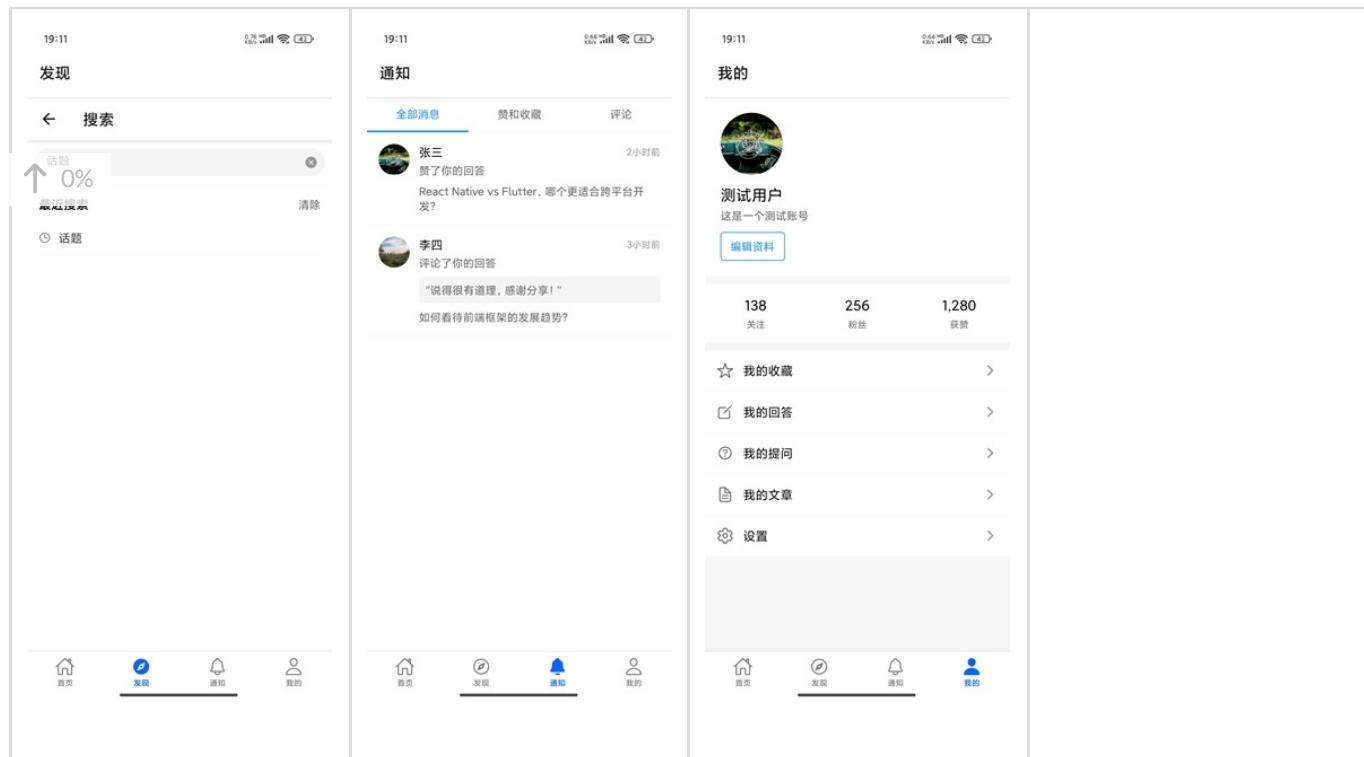
Adopt AsyncStorage and expo-secure-store to implement local data secure storage

Based on expo-image-picker (image selection), expo-image-manipulator (image processing), expo-file-system (file operation)

Based on react-native-safe-area-context (safe area handling), react-native-screens (native screen container) to handle display and performance issues

## Project Preview





## 6. Kotlin Multiplatform Mobile Projects

### 1—SwiperKMP

**Project Ownership:** Personal Project

**Project Name:** SwiperKMP(Private)

**Project Address:** <https://github.com/PGzxc/SwiperKMP>

**Software Support:** Cross-platform (Android, iOS, JVM, Web)

**Development Tools:** IDEA(2025.3.1)+Compose Multiplatform(1.9.3)+Gradle(8.14.3)+AS+Xcode

**Project Description :** Independently developed cross-platform short video + image gallery browsing application, using Compose Multiplatform to implement modern declarative UI that runs on multiple platforms with one codebase. Product form benchmarks Douyin/Xiaohongshu short video and image community, providing smooth video/image sliding browsing, category viewing, and full-screen immersive interactive experience, supporting Android, iOS, JVM and other platforms.

**Functional Modules :**

**Home:** Local / Following / Recommended multi-tab content stream, supporting left-right swipe switching

**Gallery:** Image waterfall flow display, supporting categories and pagination loading

Publish: Content publishing entry, including interactive animation feedback

Message: System notifications and user interaction messages

User information, works list and settings management

### Technical Points:

Architecture Design: Adopts cross-platform architecture, implements code sharing based on Kotlin Multiplatform, platform-specific code separation

UI Framework: Uses Compose Multiplatform to build declarative UI, implementing cross-platform responsive layout and smooth animation

State Management: Manages cross-platform page state and side effects through Compose State + LaunchedEffect + ViewModel

Network and Data: Ktor + Kotlinc Serialization + Coroutines implement efficient asynchronous network requests and data parsing

Video Playback: Cross-platform video playback, Android uses ExoPlayer, JVM uses JavaFX

Image Processing: Coil implements cross-platform efficient caching and loading, optimizing long list scrolling performance

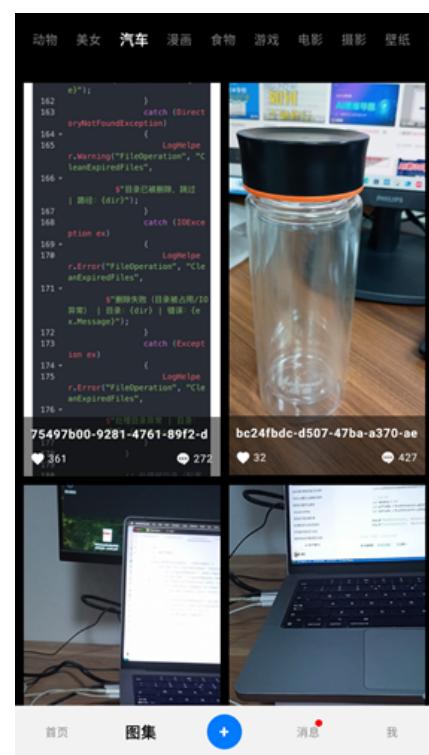
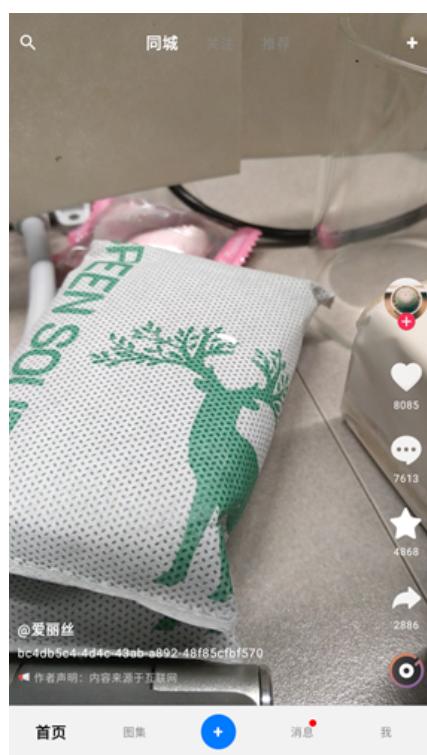
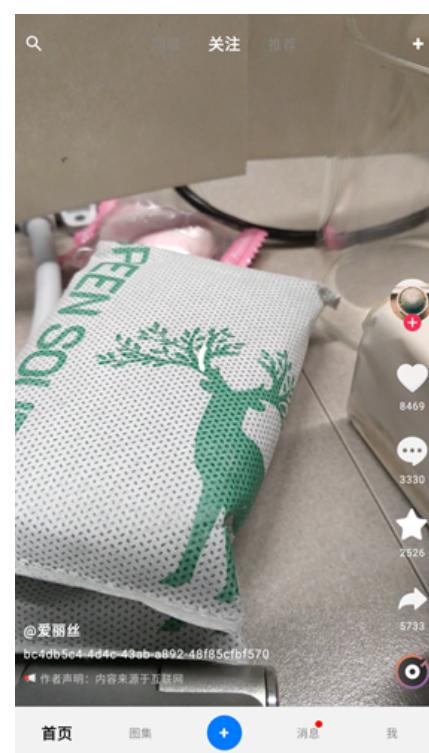
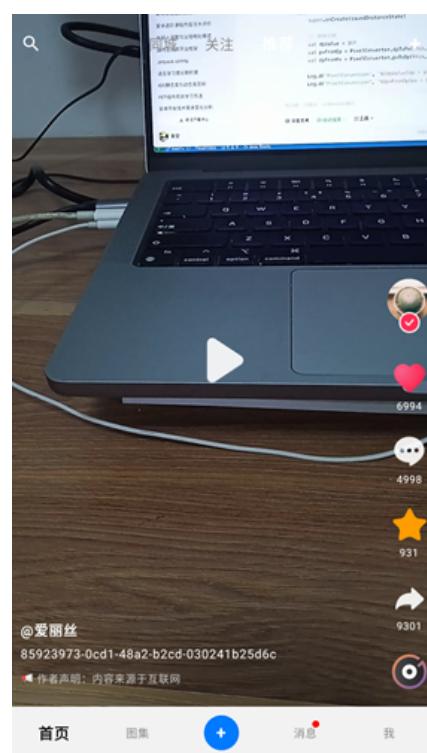
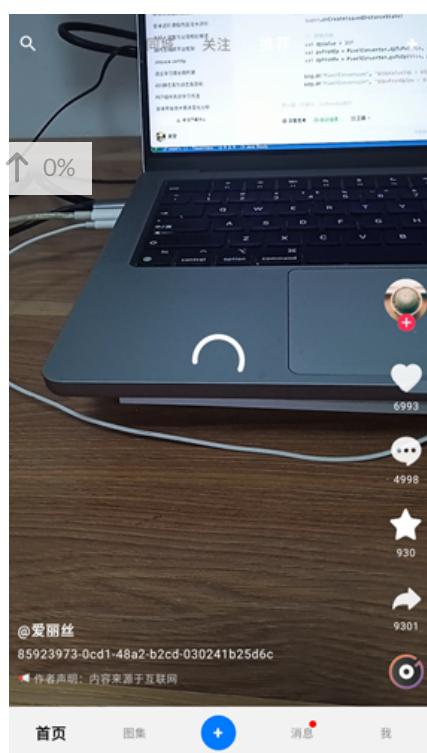
Gesture Interaction: Based on Compose gesture API to implement cross-platform consistent image zooming, sliding down to close and other immersive interactive experiences

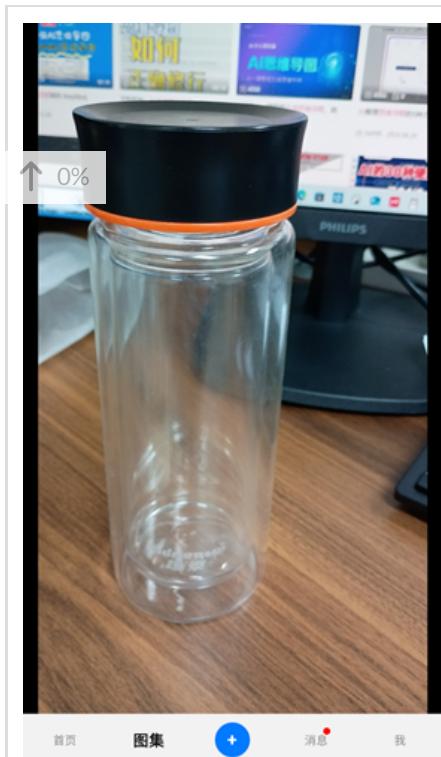
Screen Adaptation: Responsive layout + platform-specific WindowInsets processing, adapting to notch screens, system bars and various screen sizes

Build and Dependencies: Gradle Kotlin DSL + Version Catalog unified management of cross-platform dependencies and versions

Multi-platform Support: Android, iOS, JVM, Web multi-platform build, platform-specific code minimization

### Project Preview-Android





首页 图集 + 消息 我

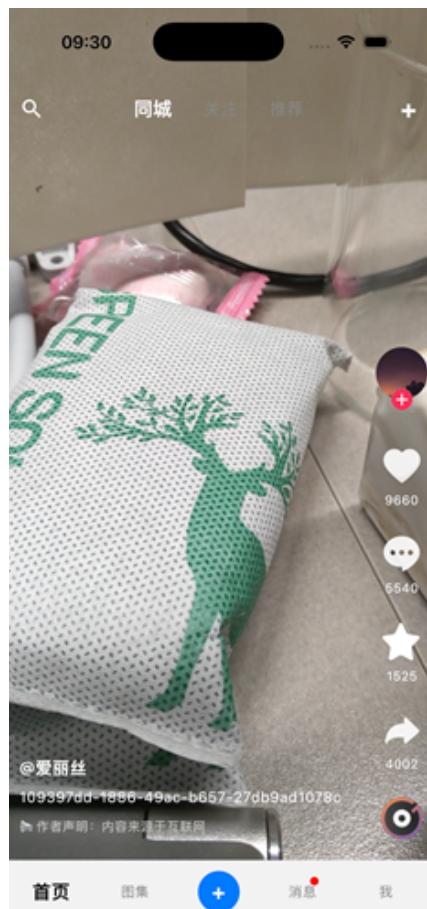
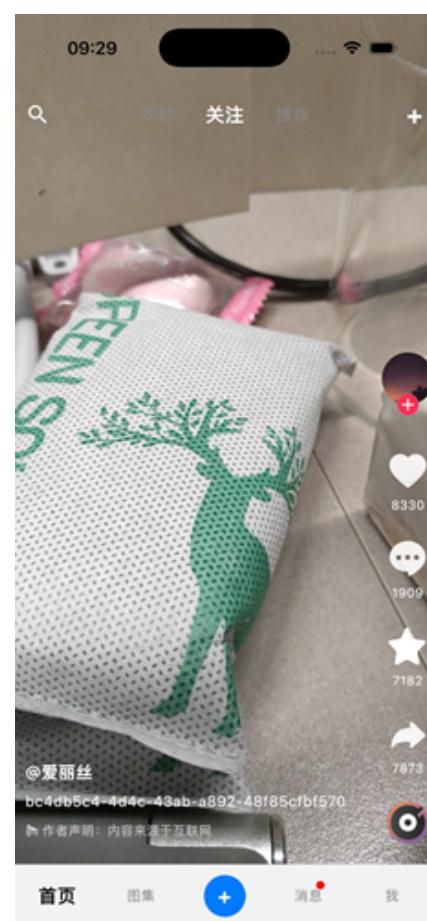
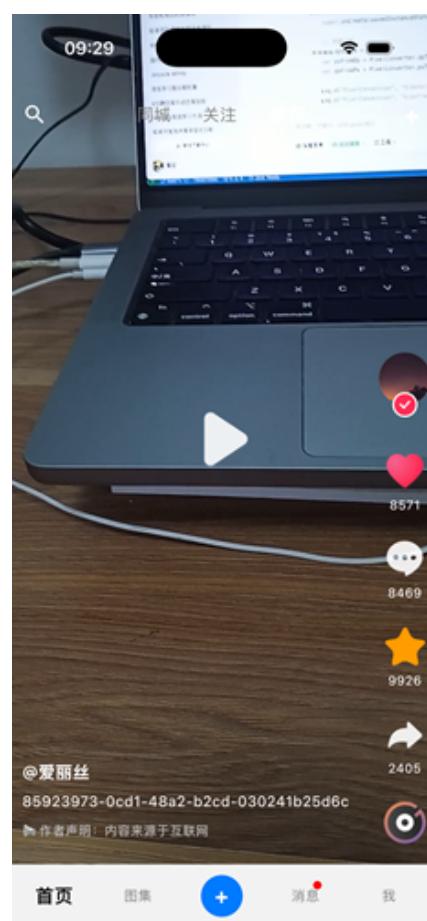
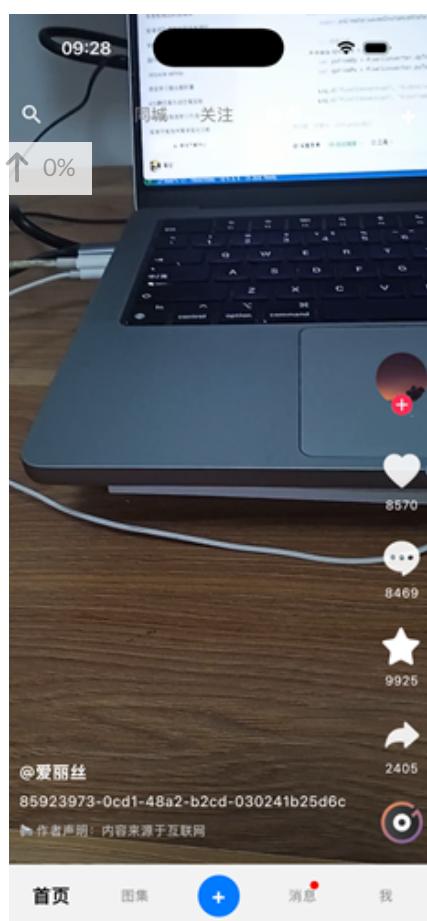


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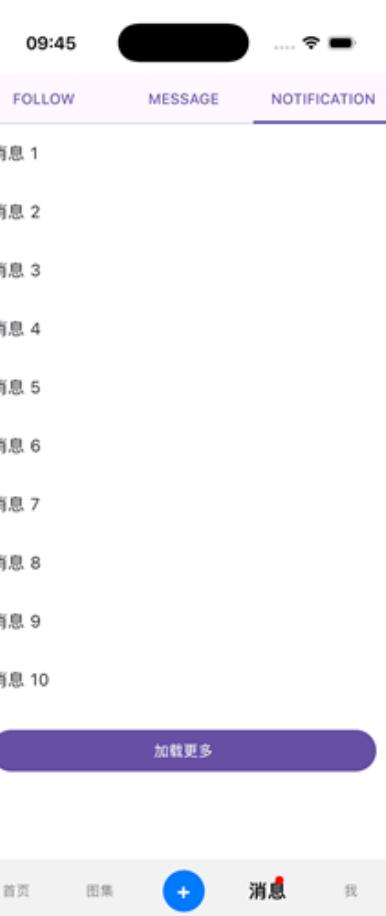


Project Preview-**IOS**





首页 图集 + 消息 我



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## 2–WanAndroidKMP

**Project Ownership:** Personal Project

 **Name:** WanAndroidKMP

**Project Address:** <https://github.com/PGzxc/WanAndroidKMP>

**Software Support:** Android+IOS+Desk(Mac/Windows/Linux)

**Development Tools:** Android Studio(2022.3.1)+Java(17.0.6)+Gradle(8.0.2-bin)+Kotlin(1.9.0)

**Project Description :** This project is developed based on WanAndroid API, using Compose Multiplatform to implement cross-platform interface construction, supporting core functions such as user login, registration, browsing articles, projects, navigation and messages. Adapted to multiple platforms.

**Functional Modules:** Home, Navigation, Project, Message, Me, Settings, etc.

**Technical Points:**

Create project based on template compose-multiplatform-template

Build bottom navigation framework based on NavigationBar

Network part: ktor-core core library + ktor-serialization-kotlinx-json serialization

Implement inter-interface navigation based on Navigator

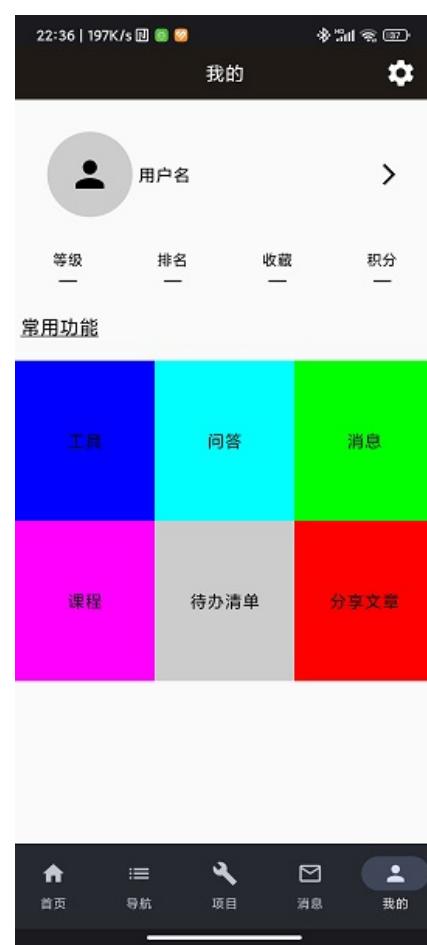
Display and load network images based on kamel-image

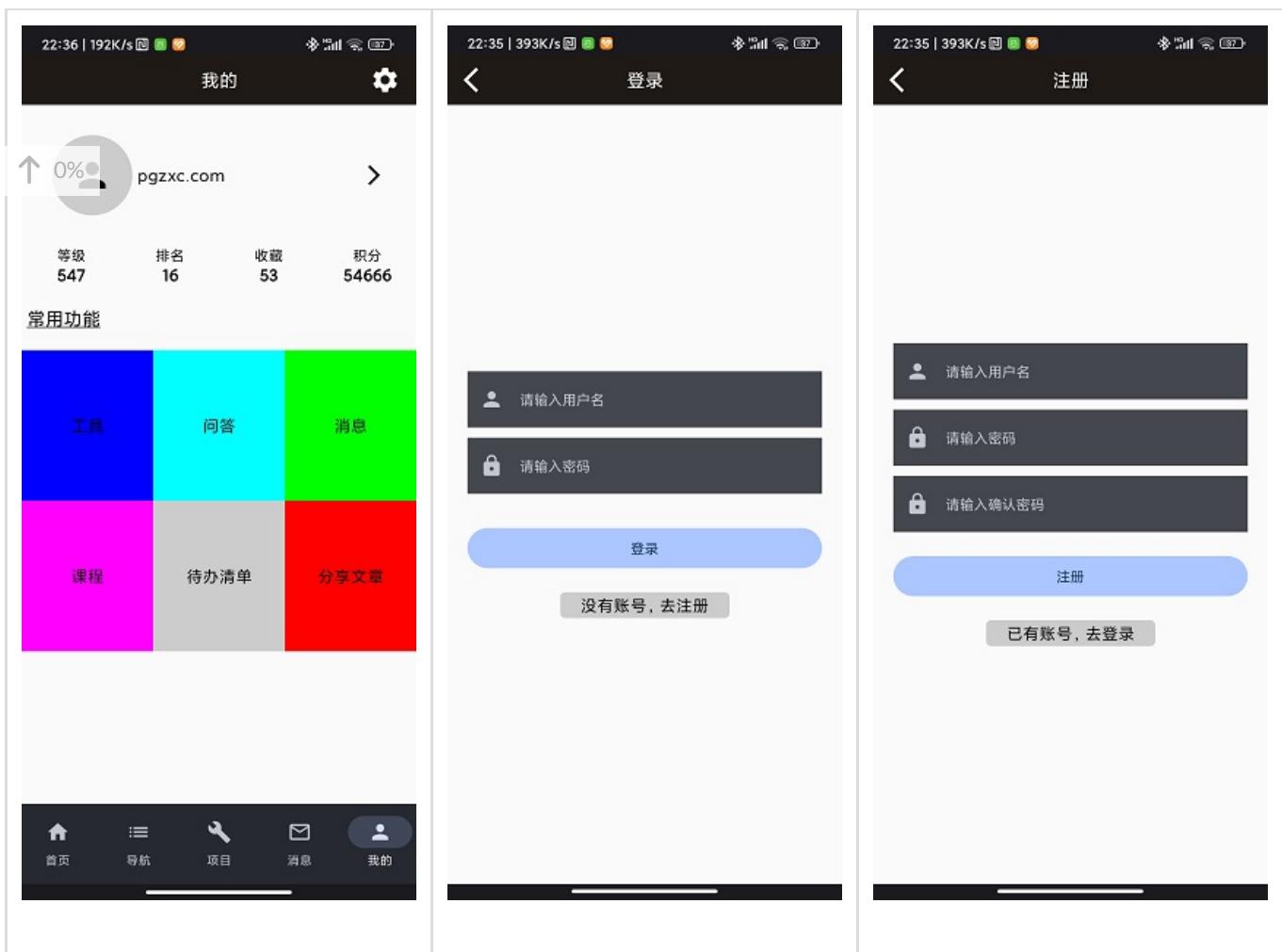
Implement cross-platform file and data storage based on kstore-file and kstore

Display Icons based on compose.materialIconsExtended

**Project Preview**

Android screenshots





IOS screenshots





## 7. Uni-app Projects

### 1—SwiperUniApp

**Project Ownership:** Personal Project/Private

**Project Name:** SwiperUniApp

**Project Address:** <https://github.com/PGzxc/SwiperUniApp>

**Software Support:** H5+WeChat Mini Program / Alipay Mini Program+Android+iOS

**Development Tools :** HBuilder X 4.87+WeChat Developer Tools+Android Studio+Xcode+Node.js+Vite

**Project Description :** Independently developed cross-platform short video + image gallery browsing application based on UniApp, built with Vue 3 + TypeScript, one code multi-end publishing, realizing unified business logic and interactive experience; product form benchmarks Douyin/Xiaohongshu short video and image community, providing smooth video and image sliding browsing, multi-tab content flow, category viewing and full-screen immersive interactive experience, supporting H5, mini programs, Android, iOS and other multi-platform operation.

## **Functional Modules:**

Home: Local / Following / Recommended multi-tab content flow, supporting left-right swipe switching and up-down swipe immersive video browsing

Gallery: Image waterfall flow display, supporting category filtering and pagination loading, click to enter full-screen image preview

Publish: Content publishing entry, presented in popup form, including interactive animation and status feedback

Message: System notifications and user interaction message display, supporting new message red dot reminder

Me: User information display, works list management and basic settings functions

## **Technical Points:**

Architecture Design: UniApp cross-end unified architecture + conditional compilation, improving code reuse rate

State Management: Composition API + ViewModel pattern, clear state management, component decoupling

Network and Data: Encapsulate unified network request layer, supporting interface aggregation, error handling and data parsing

Video Playback: Based on UniApp video component encapsulation playback control logic, supporting short video continuous sliding playback

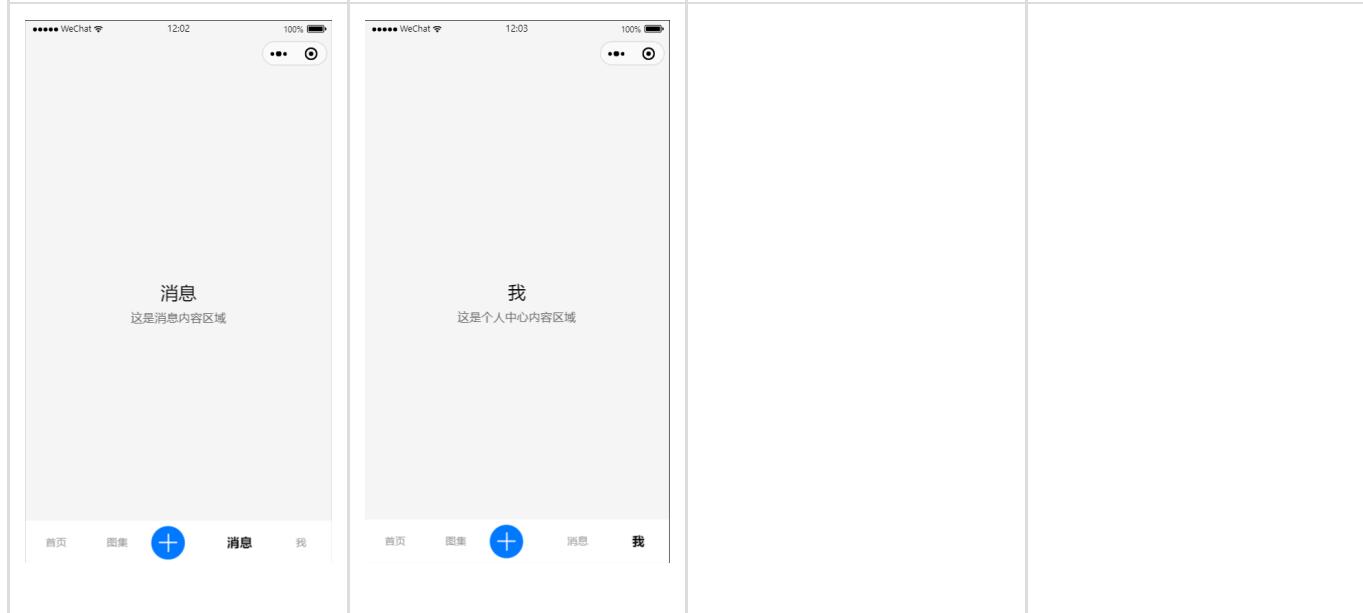
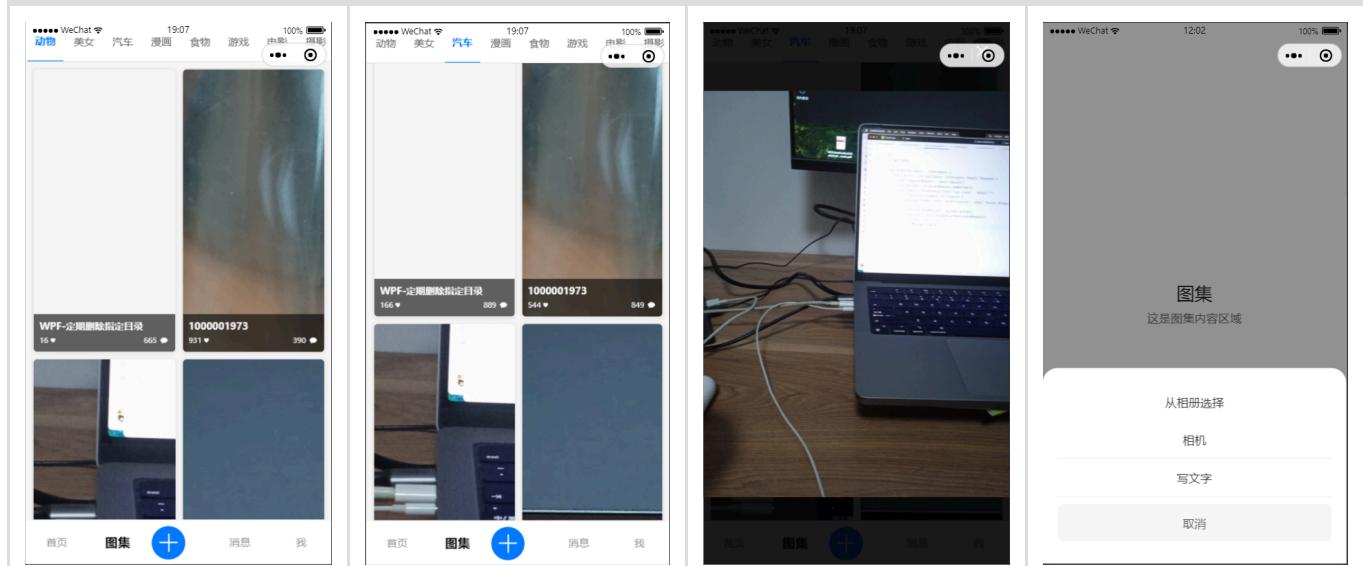
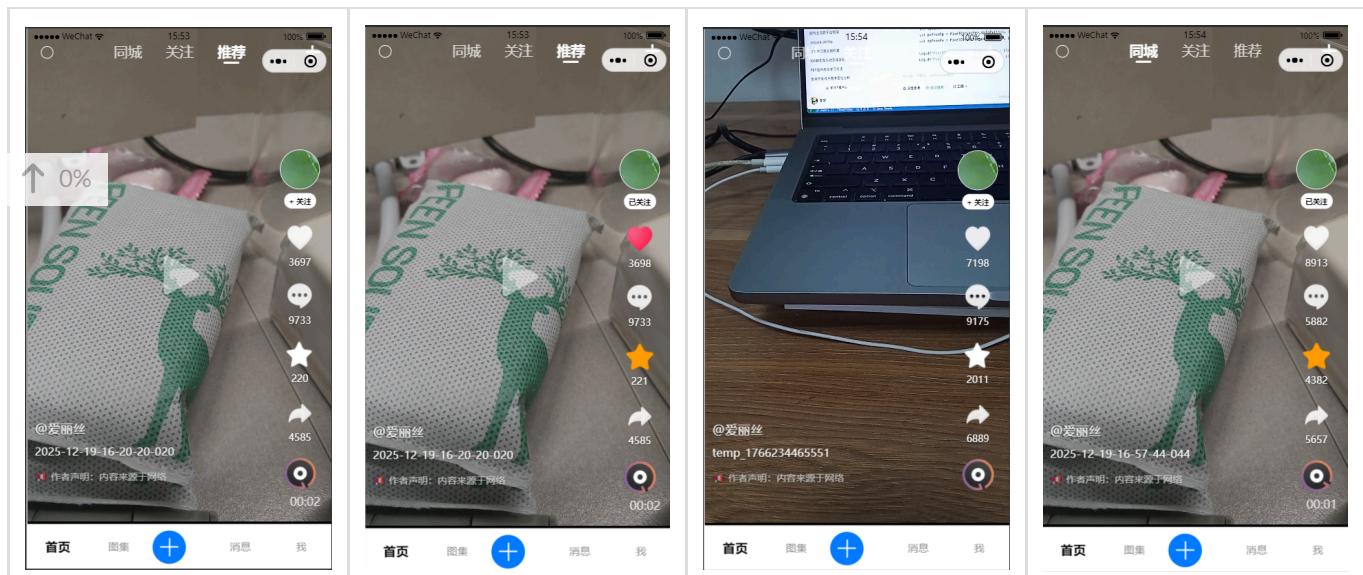
Image Processing: Implement waterfall flow loading optimization through lazy loading and pagination rendering, improving long list scrolling performance

Gesture Interaction: Implement immersive gesture interactions such as video up-down sliding and image preview zooming

Screen Adaptation: Adopt rpx + Flex to implement responsive layout, adapting to safe areas and notch screens

Build and Publish: Use HBuilderX to implement H5 / mini program / App multi-end build and publish

## **Project Preview**



**Project Ownership:** Personal Project

**Project Name:** wanandroid\_uni\_app(Open Source)

**Project Address:** [https://github.com/PGzxc/wanandroid\\_uni\\_app](https://github.com/PGzxc/wanandroid_uni_app)

**Software Support:** H5+WeChat Mini Program+Other Mini Programs

**Development Tools:** HBuilder X 3.8.4.20230531+WeChat Developer Tools+Vue(2.x)

**Project Description:** This project is based on WanAndroid open source API, built using uni-app, realizing user login and registration, article browsing, project display, navigation viewing, message notification and other functions, supporting multi-end deployment

### Technical Points:

Use uni-ui component library to build page layout and interactive interface

Encapsulate network requests based on uni.request

Listen to inter-page event communication based on uni-api-EventChannel

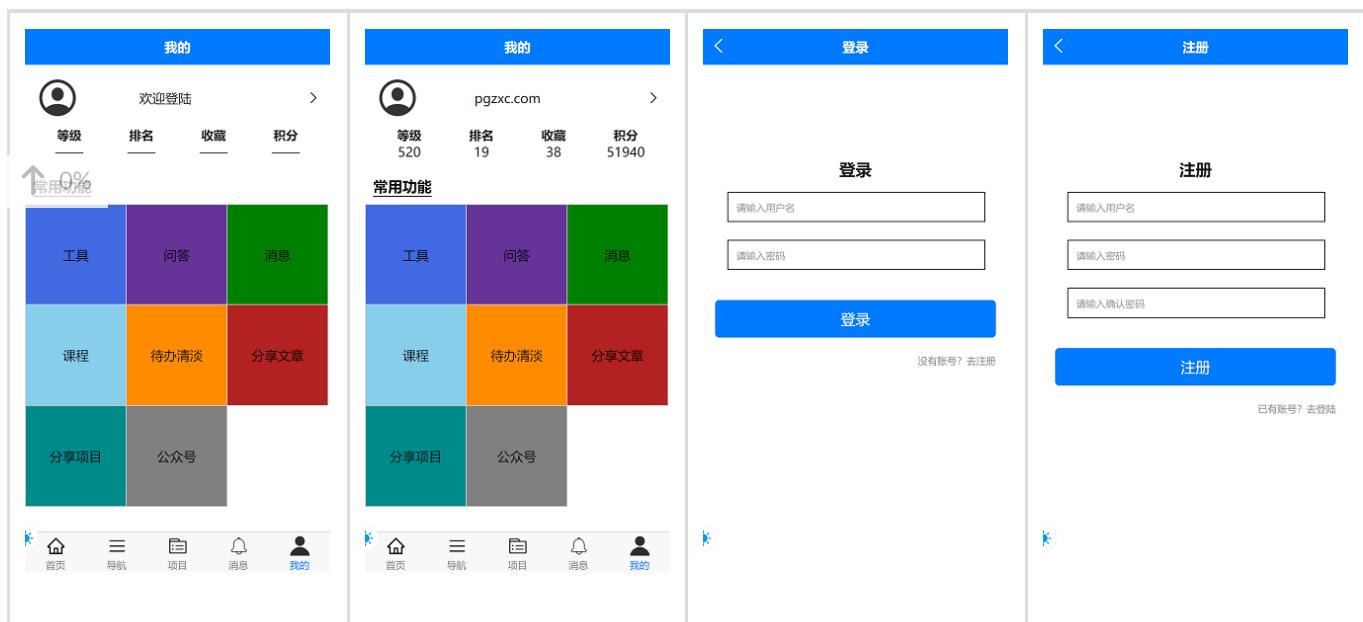
Implement page jump and navigation control through routing APIs such as uni.navigateTo and redirectTo

Use uni.setStorage/uni.getStorage for local data caching

Create Vue components for page reuse

### Project Preview





## 8. AI Projects

### 1—FlutterGeminiAI

**Project Ownership :** Personal Project

**Project Name:** FlutterGeminiAI

**Project Address:** <https://github.com/PGzxc/FlutterGeminiAI>

**Software Support:** Android+IOS

**Development Tools:** IDEA 2024.1.3+Flutter(3.22.2)

**Project Description:** Flutter Gemini AI is a multimodal AI dialogue application built based on the Google Gemini-1.5-Flash model, supporting pure text and mixed text-image input. Users can interact naturally with AI through text or images, with a chat window-style interface design, messages displayed on the left and right sides, and a clean and intuitive interface to enhance the interactive experience.

**Functional Modules:** Dialogue Module

**Technical Points:**

Initialize the model based on GenerativeModel(model: 'gemini-1.5-flash', apiKey: apiKey)

Generate text input based on model.generateContent([Content.text('Text')])

Text-image multimodal based on model.generateContent([Content.multi([prompt, ...imageParts])])

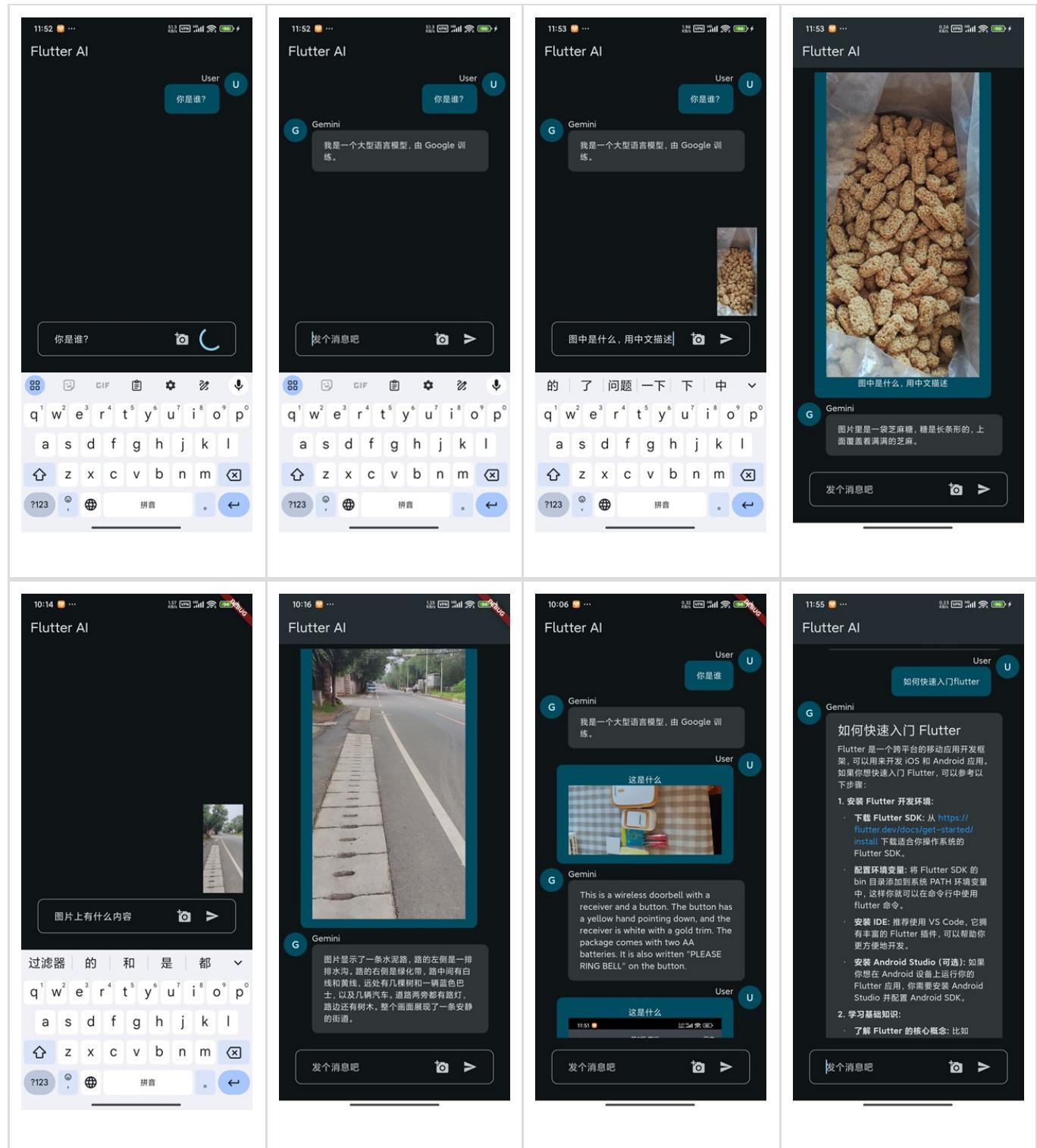
Custom bottom input module (input box + image selection + message sending)

Choose left-side Gemini layout or right-side User layout based on role

Select gallery images based on image\_picker

Auto-scroll to bottom after sending messages

## ↑ 0% Project Preview



## Skills List

### Android

Familiar with project development patterns: Traditional (XML+Java/Kotlin) and declarative UI (ComposeUI)

↑ Familiar with multi-threading and asynchronous communication mechanisms: Handler, AsyncTask, Coroutine, thread pools, etc.

Familiar with mainstream architecture patterns and practices: MVC/MVP/MVVM/MVI

Familiar with core frameworks and principles: Retrofit/OkHttp, RxJava, Room, EventBus, MMKV, Glide/Fresco, etc.

Familiar with mainstream commercial SDK integration and debugging: Login, SMS verification, IM, video/live streaming, push notifications, payment, maps, etc.

Understand Android core mechanisms: Message mechanism, event distribution mechanism, View drawing process

Familiar with performance optimization and analysis: Startup optimization, lag detection, memory optimization, network optimization, overdraw optimization, etc.

Proficient in using performance debugging tools: Profiler, TraceView, Systrace, MAT, LeakCanary, etc.

Familiar with compatibility and adaptation: Device adaptation (phone/tablet/foldable screen) and version adaptation (Android 6.0+)

Understand system underlying principles: ART/Dalvik virtual machine, Binder communication mechanism, memory/process management, application startup process

## iOS

Familiar with project development patterns: Traditional UIKit (xib/Storyboard+OC/Swift) and declarative UI (SwiftUI)

Familiar with development and collaboration tools: Dependency management (CocoaPods/SPM/Carthage), version control (Git/GitHub/Sourcetree), CI/CD

Familiar with mainstream frameworks: Alamofire/AFNetworking, SwiftyJSON/ObjectMapper, SDWebImage/Kingfisher, etc.

Familiar with common data storage: UserDefaults/MMKV, Core Data, Realm/SQLite

Understand system mechanisms: Event delivery mechanism, response chain, custom controls, KVC/KVO, CALayer/UIView, etc.

Understand underlying principles: Runtime dynamic mechanism, RunLoop working principle, memory management (MCR/ARC), multi-threading (GCD/NSOperation)

Familiar with common commercial SDKs: Push notifications, IM, payment, social sharing, video/live streaming, maps, etc.

↑ Familiar with performance optimization: Memory leak detection, crash analysis, lag and performance monitoring, tools (Instruments/Leaks/Time Profiler)

Familiar with compatibility and adaptation: Size (iPhone/iPad), screen resolution, system compatibility

Have App Store 上架 experience, familiar with signature, certificate management and common review issue handling processes

## HarmonyOS

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Familiar with HarmonyOS multi-language development system: Java, arks/ts/js, Cangjie

Familiar with HarmonyOS application models: Stage model, FA model

Familiar with UIAbility lifecycle and callbacks

Familiar with HarmonyOS decorators and state managers: v1 and v2 versions, \$ and \$\$, global state management, etc.

Familiar with arks multi-threading: TaskPool and Worker

Familiar with asynchronous and events: Asynchronous (callbacks, Promise/async/await, etc.), event mechanisms (EventHub, component events)

Familiar with component two-way communication: @Prop/@Observed, @Link, @Provide/@Consume, Emitter/EventHub

Familiar with HarmonyOS system capabilities: File access, camera, location, network, notifications, media playback, etc.

Familiar with distributed development: Distributed data (sharing), distributed soft bus, distributed APIs

Familiar with lightweight services: Atomic services, card services

## Flutter

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Familiar with Flutter component system and lifecycle: StatelessWidget, StatefulWidget

Understand Flutter's three trees: Widget Tree, Element Tree, RenderObject Tree

Familiar with Flutter startup process and performance optimization: Complete link from application startup to home page rendering and startup acceleration solutions

Familiar with Flutter asynchronous and network: Future/Stream, async/await and Future, Dio/Retrofit, etc.

↑ Familiar with Flutter local storage: SharedPreferences, SQLite/Drift, Hive/Isar

Familiar with Flutter routing management: Navigator 1.0/2.0, GoRouter, AutoRoute

Familiar with Flutter state management: Provider, Bloc, Riverpod, GetX, MobX, Cubit

Familiar with Flutter underlying mechanisms: Three-tree rendering mechanism, UI drawing process, etc.

Understand native hybrid development and communication mechanisms: Flutter and native hybrid, XXChannel communication

Familiar with performance and multi-platform adaptation: Startup optimization and white screen prevention, performance optimization and tuning tools, multi-platform adaptation, overflow issues

## React Native

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Familiar with front-end basics: html/css/js, es6, ts/jsx, react, vue, etc.

Familiar with RN basics: Function/class components, Props/State, component encapsulation, Hooks, lifecycle

Familiar with RN state management: Redux, MobX, Zustand, Recoil, etc.

Familiar with RN tools and engineering: Webpack/Vite/Rollup, Expo (CLI/Dev Client), CI/CD

Familiar with RN routing and navigation: React Navigation, React Router Native, Wix Navigation

Familiar with RN data storage: AsyncStorage, MMKV, Realm, SQLite, WatermelonDB

Understand RN rendering principles: Virtual DOM diff algorithm, Yoga layout engine, Bridge communication mechanism and new architecture (JSI/Fabric)

Familiar with RN component communication: Parent to child (Props), child to parent (callback functions), cross-level (state management)

Familiar with common RN libraries: UI libraries (NativeBase/RN Elements), cross-platform UI (Ant Design)

Understand native extensions and communication capabilities: Native access (bluetooth/location/push), native communication (TurboModules/JSI), etc.

## Kotlin Multiplatform Mobile

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Familiar with Kotlin language: Type inference, null safety, extension functions, coroutines, data classes/sealed classes, etc.

Familiar with KMP platform specialization: expect/actual mechanism, commonMain/androidMain/iosMain module division

Familiar with KMP build and configuration: kotlin{targets {}}, multi-platform dependencies, Gradle DSL

Familiar with KMP architecture: Shared module MVVM architecture, encapsulating ViewModel/Repository

Familiar with KMP data layer: Network layer (Ktor), database (SQLDelight), storage layer (KStore/Preferences), etc.

Familiar with KMP coroutine scheduling: Coroutines (CoroutineScope), dispatching (Dispatcher)

Familiar with KMP dependency injection system: Hilt (Android side), Koin (multi-platform implementation)

Understand KMP compilation and build process: Build process, compilation products (Framework/klib), XCFramework packaging and static linking

Understand KMP performance and memory optimization: New GC model, data freezing issues, cross-thread optimization

Understand KMP and native interoperability: Android/iOS calling shared modules, bridging Swift and Kotlin data types

## Java

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Proficient in Java basic syntax, collections, multi-threading, reflection and other core technologies

Familiar with JVM memory management, garbage collection mechanism and class loading principles

Master mainstream development frameworks such as Spring, Spring Boot, MyBatis

Proficient in using MySQL, Redis and other databases and caching technologies, with SQL writing and optimization capabilities

Understand distributed architecture, master common middleware such as RabbitMQ, Kafka, Nacos, Dubbo, etc.

Familiar with network programming, HTTP protocol and concurrent processing, master thread pools, lock mechanisms and other concurrent models

Proficient in using Git, Maven, IDEA and other development tools, understand Jenkins, Docker and other automated deployment processes

Familiar with Junit, Mockito and other unit testing frameworks, understand common Web security (XSS, CSRF, SQL injection) risks

## WeChat Mini Program

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Proficient in using markup language, style sheets, JS for functional development

Familiar with the use of common components and related APIs

Familiar with mini program network API function encapsulation and returned data processing

Familiar with mini program function debugging and exception problem solving

Familiar with mini program template encapsulation and calling

Familiar with mini program animation and Canvas drawing

Familiar with mini program third-party SDK usage

## Frontend

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Familiar with HTML5 and semantics: Semantic tags, audio/video, Canvas, WebSocket, LocalStorage, etc.

Familiar with CSS3 layout and style system: Flex/Grid layout, BFC, positioning mechanism and CSS priority, animation, variables and Sass/Less, etc.

Familiar with JS core mechanisms: Closures, prototype chain, this binding, event model, asynchronous programming (Promise, async/await, event loop)

Understand browser working principles and performance optimization: Rendering process, caching strategy, reflow and repaint optimization, and security protection (XSS, CSRF)

Familiar with ES6+ new features and modular system: Destructuring assignment, optional chaining, Proxy/Reflect, Symbol, ESM modularization, Babel transpilation mechanism

Familiar with mainstream front-end frameworks: Vue2/Vue3 responsiveness, Hooks principles and Diff algorithm

Familiar with front-end engineering and build toolchain: Build tools (Vite, Webpack, Rollup, etc.) and optimization strategies (subcontracting, lazy loading, code splitting)

Understand Node.js and full-stack frameworks: Backend frameworks (Express, Koa, NestJS, etc.), understand BFF patterns and CI/CD deployment processes

Understand network communication and protocol principles: HTTP/HTTPS, DNS, CDN, load balancing, WebSocket communication and RESTful/GraphQL

Have performance and cutting-edge technology application capabilities: First screen optimization, virtual lists, lazy loading, understanding of micro-frontends, WebAssembly, WebGPU, AI

## C#

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Familiar with C# language and .NET Framework, proficient in developing ASP.NET and WinForm applications

Familiar with Web development technologies, master Flex, CSS, JavaScript, XML and WebService  
Proficient in using GDI+, IO, multi-threading and network programming technologies for WinForm program development

Understand and apply three-tier architecture design, familiar with B/S and C/S application mode development

Familiar with using common design patterns, such as singleton pattern, factory pattern, etc.

Familiar with the configuration and use of common source code management tools, such as SVN, Git

Familiar with SQL Server, MySQL and Access databases, proficient in using ADO.NET for data access and operations

Familiar with common WinForm third-party control libraries such as DevExpress, ComponentOne

## AI

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Familiar with developing Flutter-based AI image-text software using gemini-1.5-flash model

Familiar with image recognition and classification based on TensorFlow Lite model

Familiar with object detection based on TensorFlow Lite model

Familiar with single or multi-person pose recognition based on TensorFlow Lite model

Familiar with voice command recognition based on TensorFlow Lite model

Familiar with intelligent response based on TensorFlow Lite model

Familiar with human action recognition in video clips based on TensorFlow Lite model

Familiar with natural language processing and question answering based on TensorFlow Lite model

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## Acknowledgements

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Thank you for taking the time to read my resume. I look forward to the opportunity to work with you.

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