

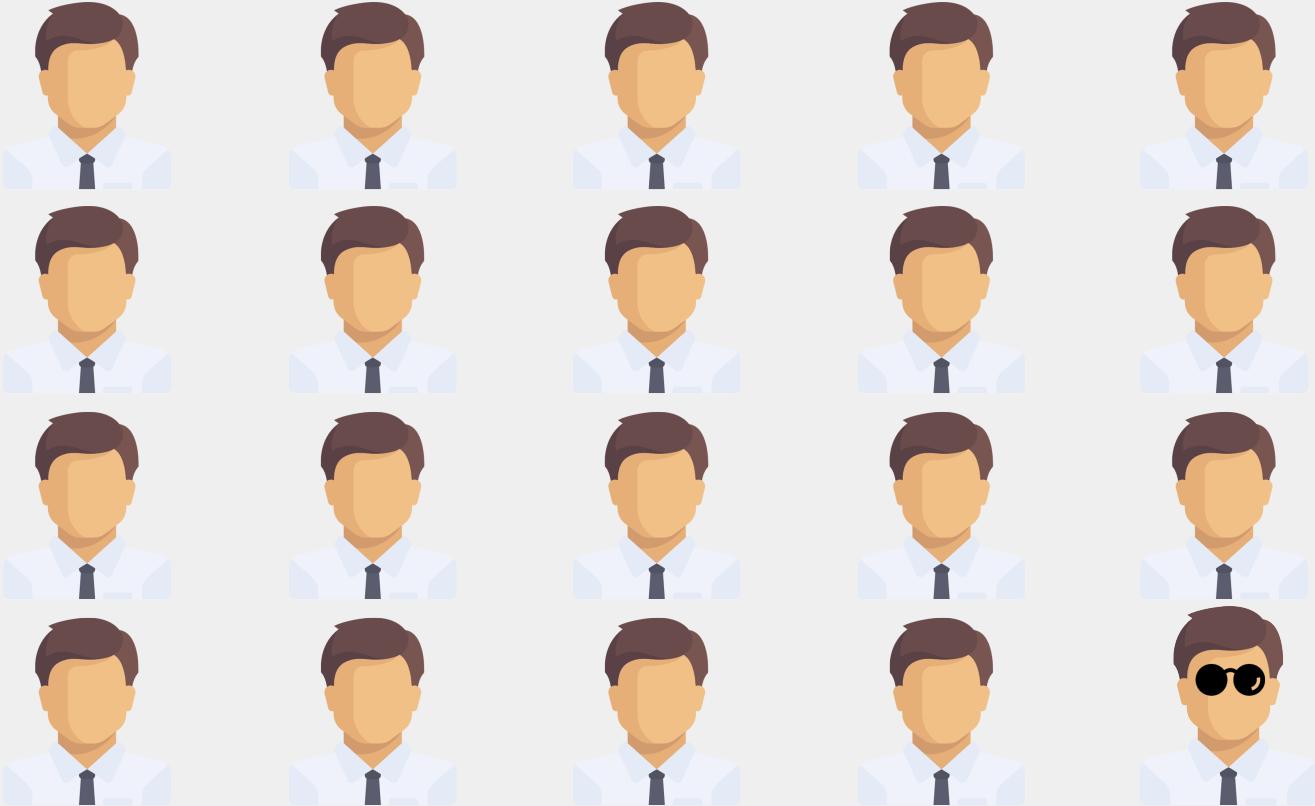
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sense-plus.com

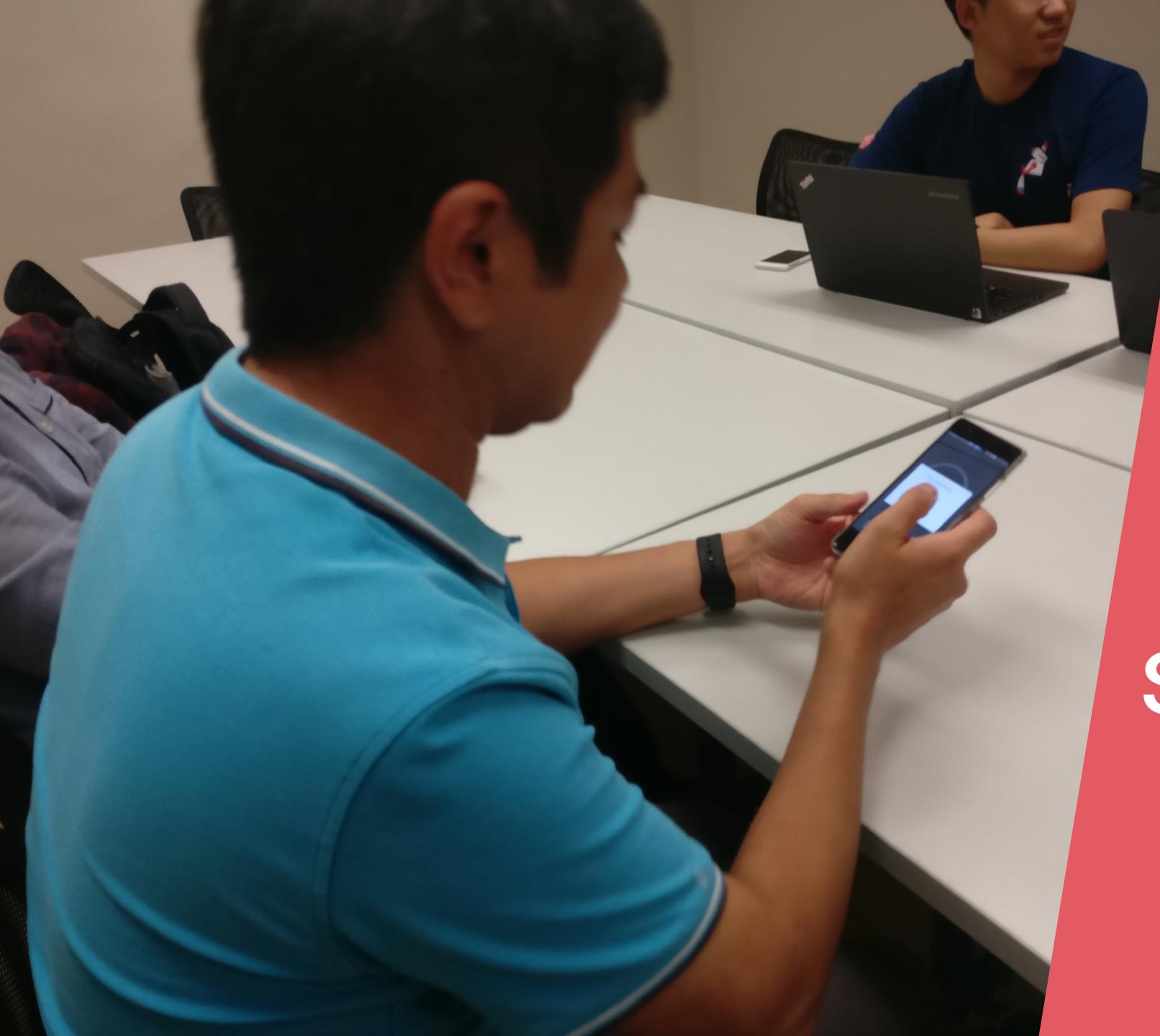
A Bright Ally
For the Visually Impaired

Derek Mingyu MA
Winona Shi WANG
Constan Shuhao CHANG

PolyU
HKUST
PolyU



1/20 of us is visually impaired

A photograph of a man in a blue polo shirt sitting at a white conference table, looking down at his smartphone. He is wearing a black smartwatch on his left wrist. In the background, another person is seated at the table working on a laptop. The scene is set in a modern office environment.

Use
smartphones
everyday



SENSE+

Computer Vision



Comprehensive Online Information

Computer Vision



Functions



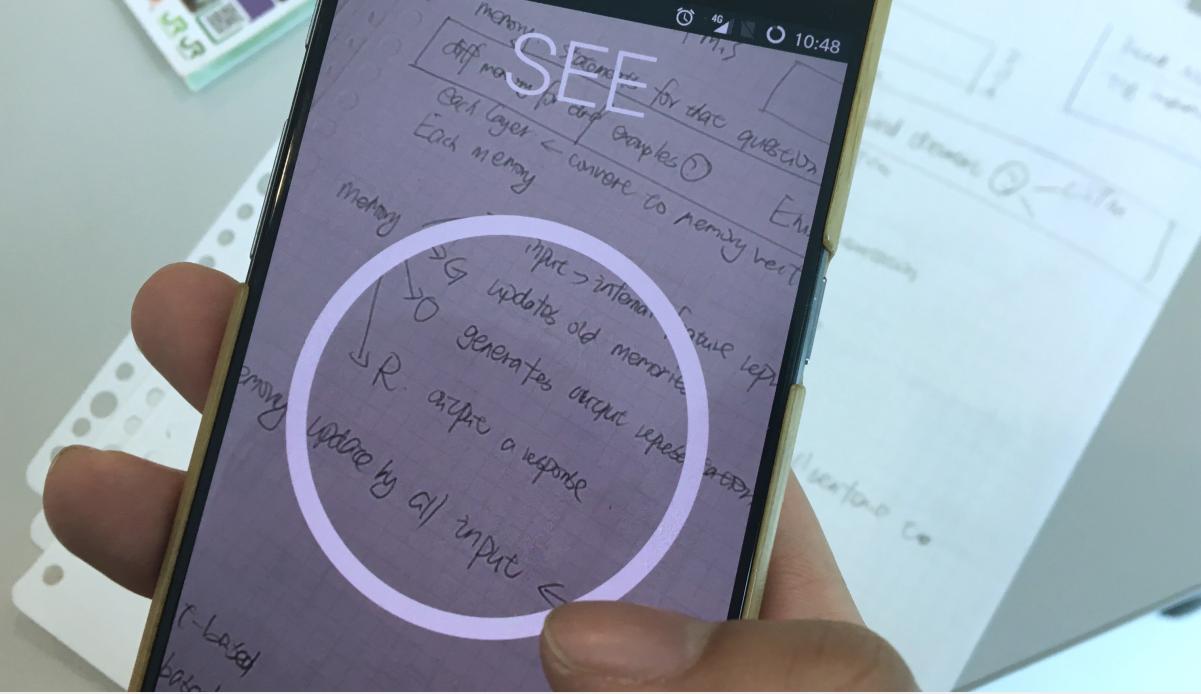
See
Friends

See Cash



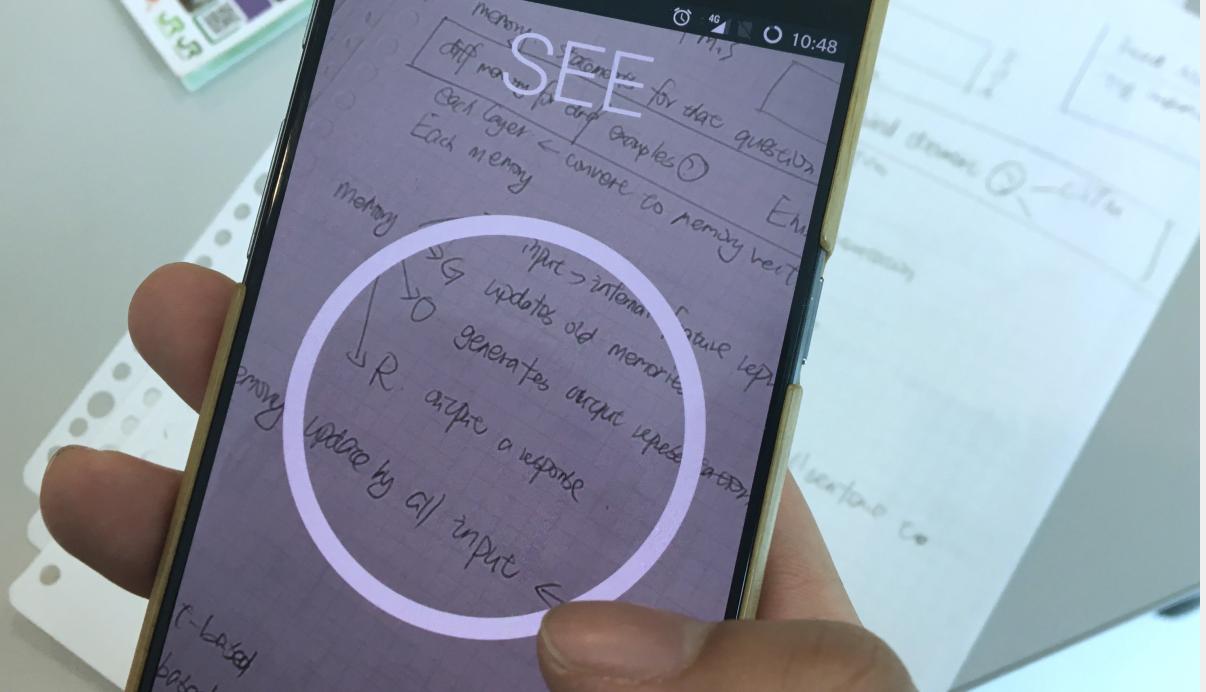
See
Text
+ More Info





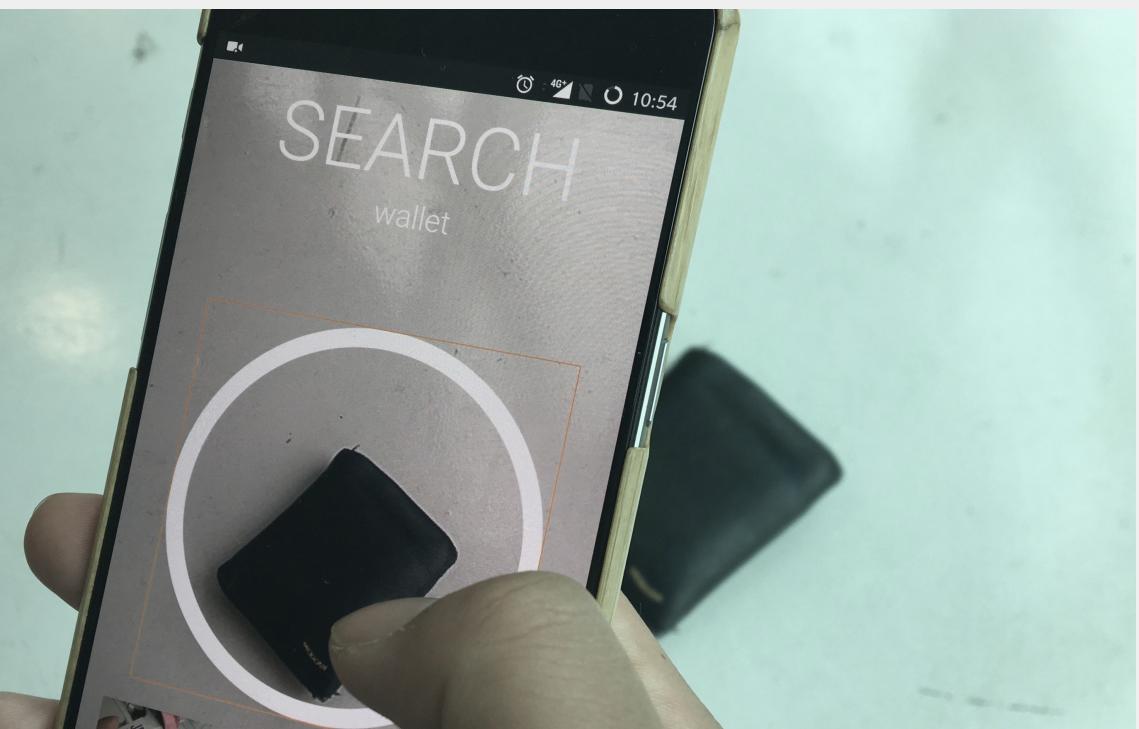
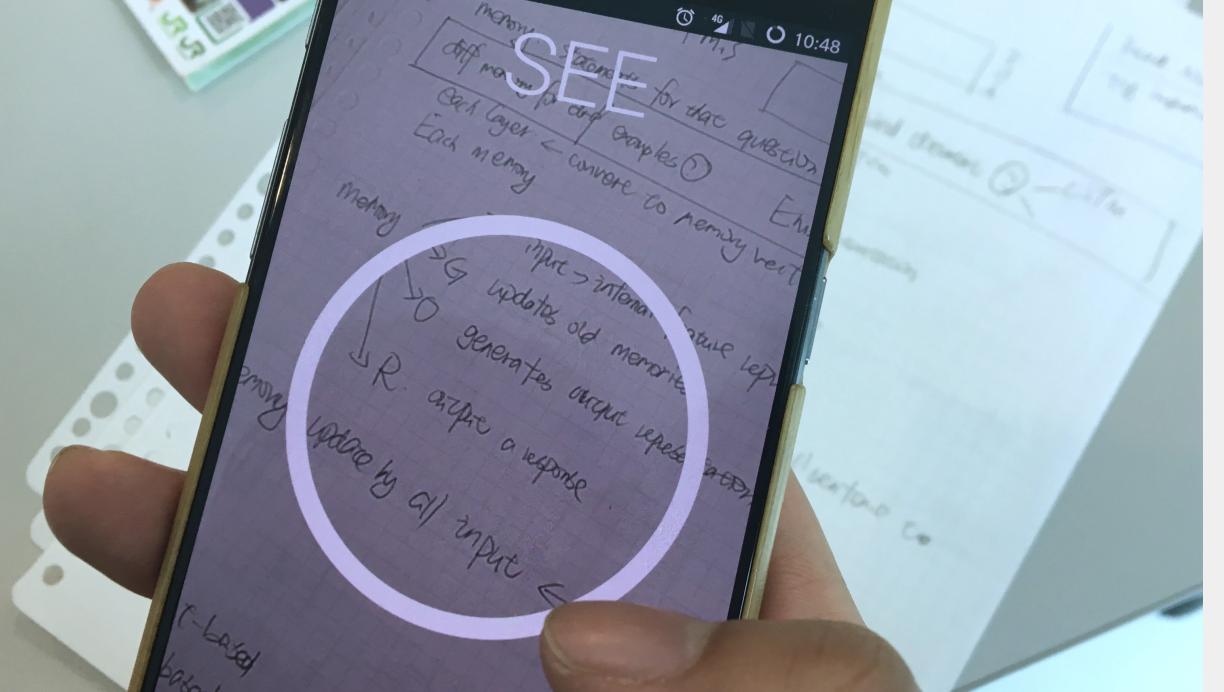
Read Text

Read books for **amblyopia** children

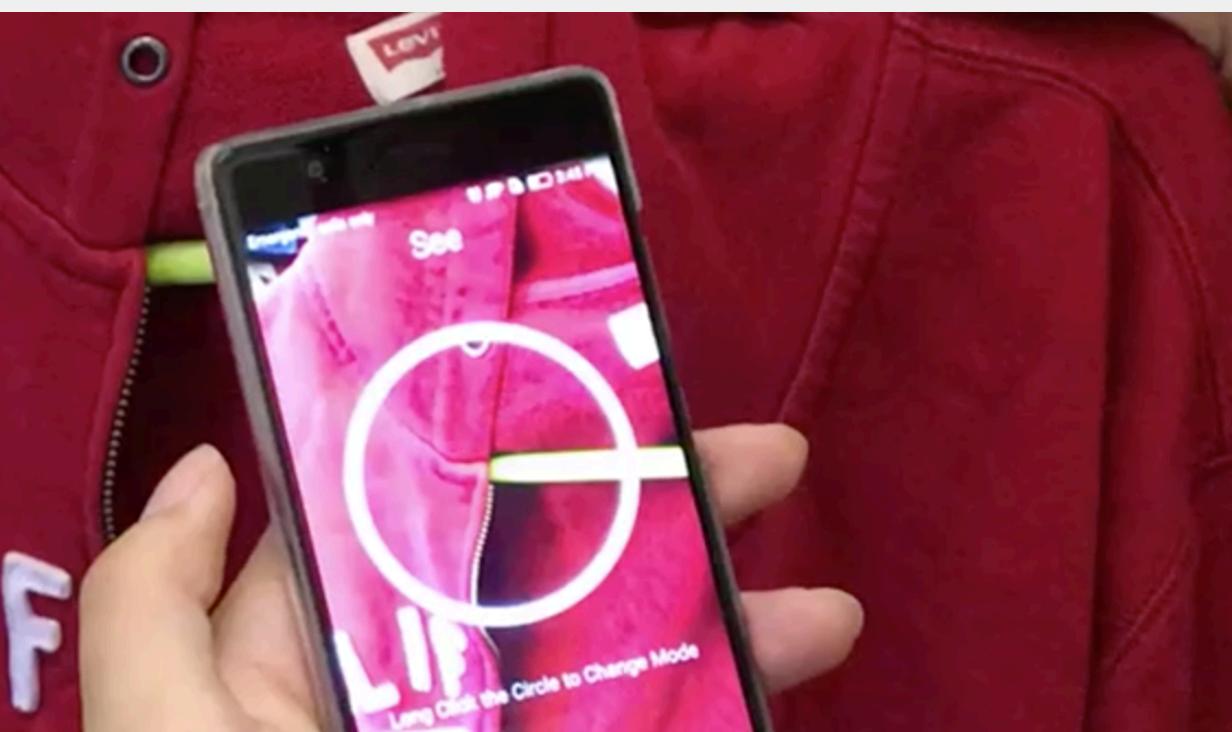
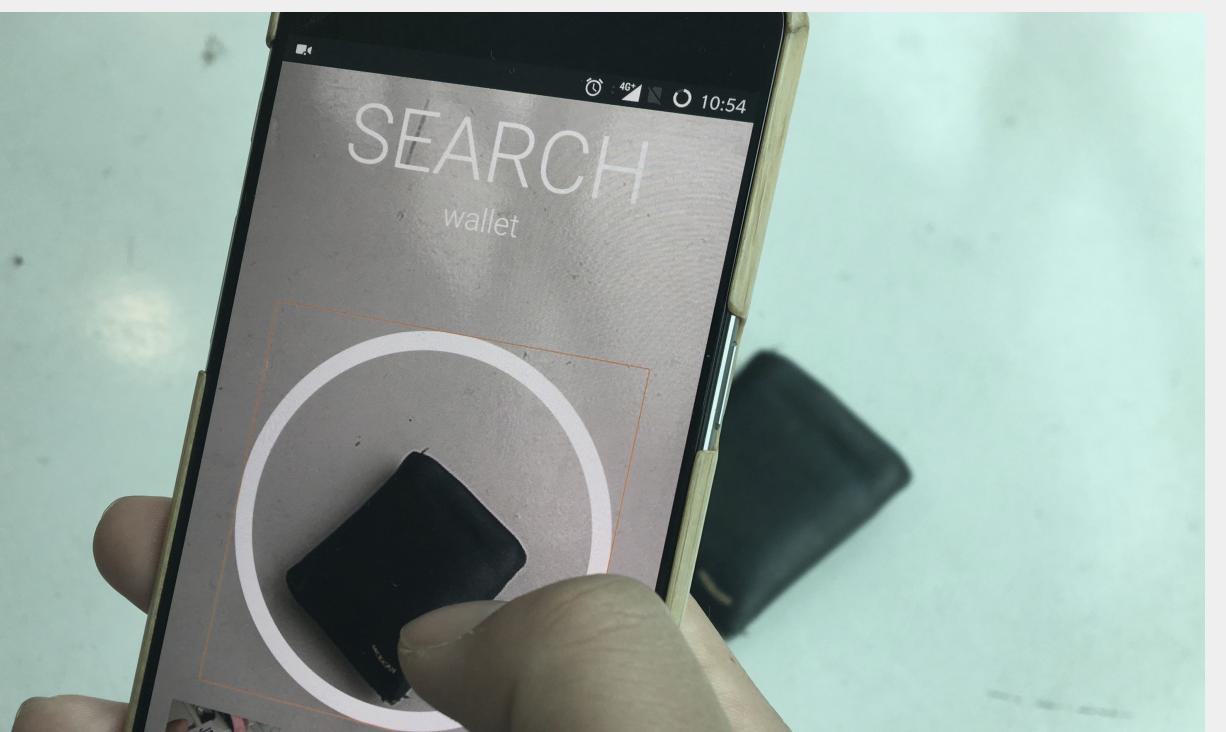
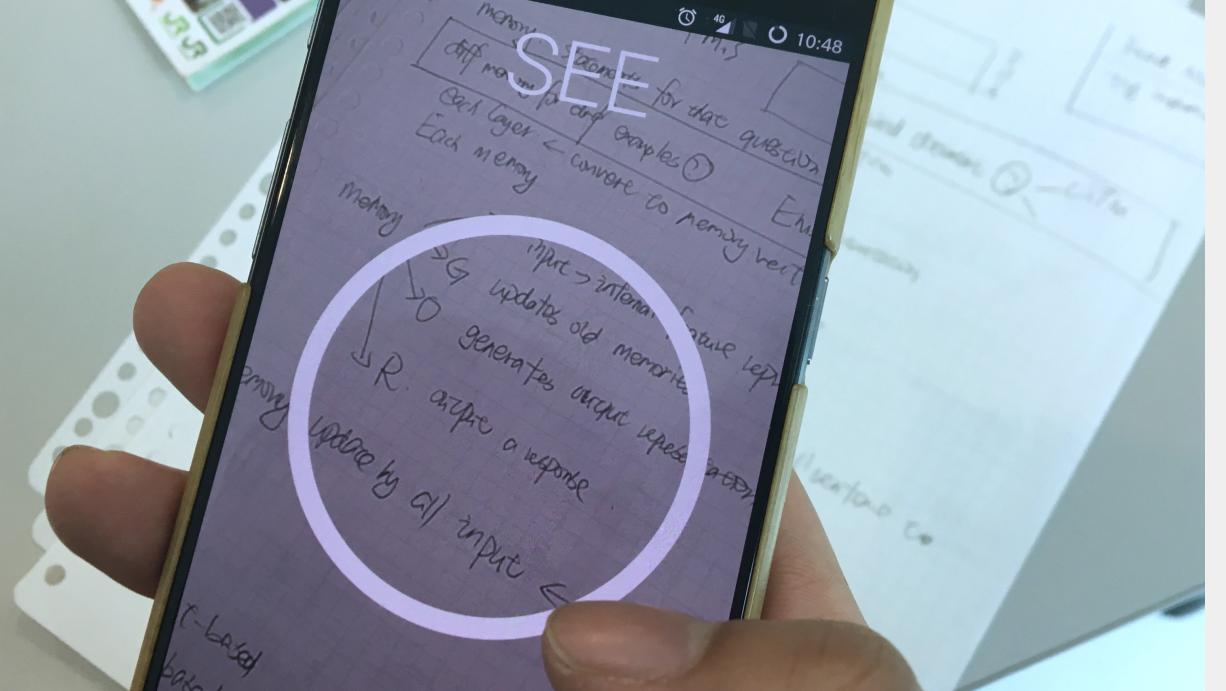


Scan Barcode

Get more **details** about goods



Search



Objects' Price

Online Searching

Event Info

Restaurant Rating

Search

Cash

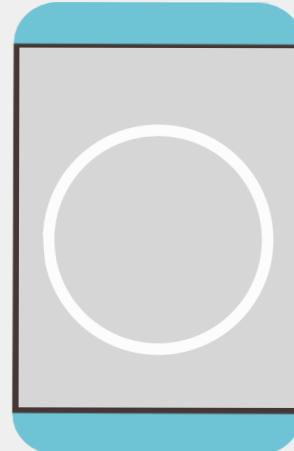
Barcode

Friends

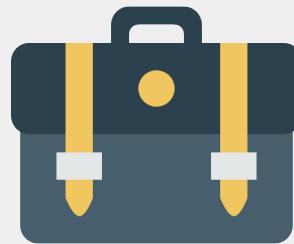
Text

Personalized

Friends



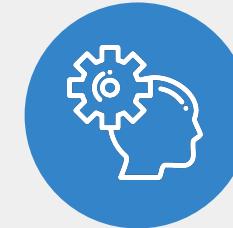
Belongings



Offline,
Real-time and
Self-learning



On-machine
Neural Network Model



Real-time
Image Processing



Trained by
Users' Behavior

How Does It Work?

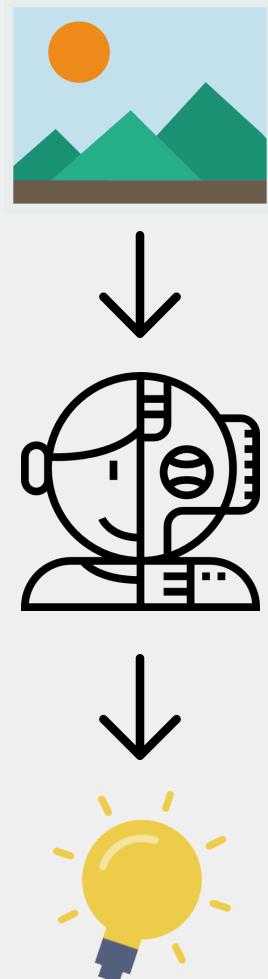


Image Processing and Object Detection



Microsoft Cognitive APIs



Online Information and UX



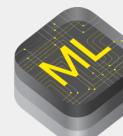
Microsoft Language
Understanding Intelligent
Service



Online Information APIs,
Bing Search



Offline Real-time Machine Learning



iOS CoreML

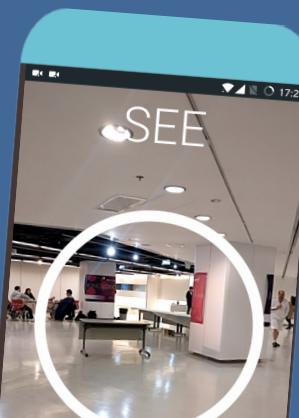


TensorFlow Lite

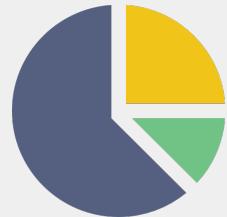
Business Model

Premium Version:
Comprehensive
Online Information

Free Version:
Computer Vision



Target Market: Hong Kong & Mainland China



Number of Visually Impaired People

174,800+

Hong Kong

13,000,000+

Mainland China



Target Users



Visually Impaired



Amblyopia children

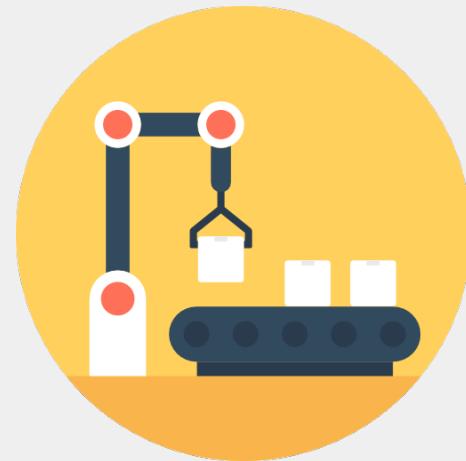


Elders with eye diseases



NGOs

Sponsorships



Manufacturers of Assistive Tools

Team Capability

SENSE+ Team



MA Mingyu
Derek



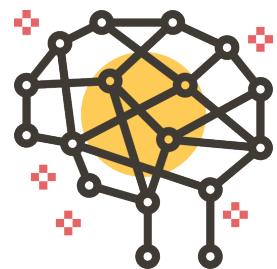
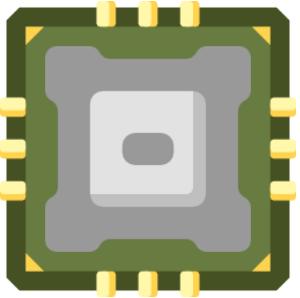
WANG Shi
Nona



CHANG Shuhao
Constan



Tech + Design + Business



- AI
 - Natural Language Processing
 - Computer Vision
- Hardware
- Design
- Cloud
- Marketing



Team Formed

Champion of PolyU Smart Computing Competition

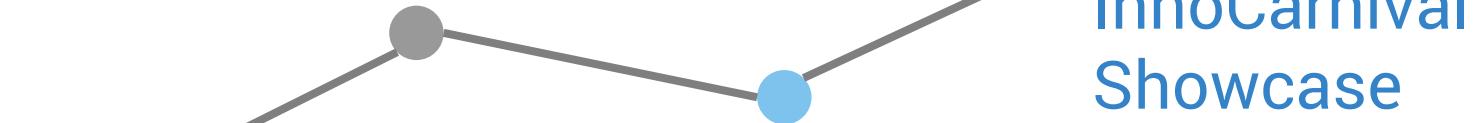
Champion of Microsoft Imagine Cup 2017 Hong Kong Region



Media Coverage



Interviewed by ViuTV



InnoCarnival Showcase

Innovation & Tech

AI (Computer Vision, Language Understanding, Offline image processing, self-learning)

Commercial Feasibility

Large market (Visually impaired, Elderly with eye diseases, amblyopia children, etc.)

Sponsorship

Team Capability

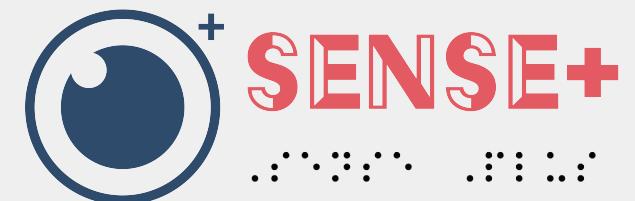
Background (Tech + Design +Business)

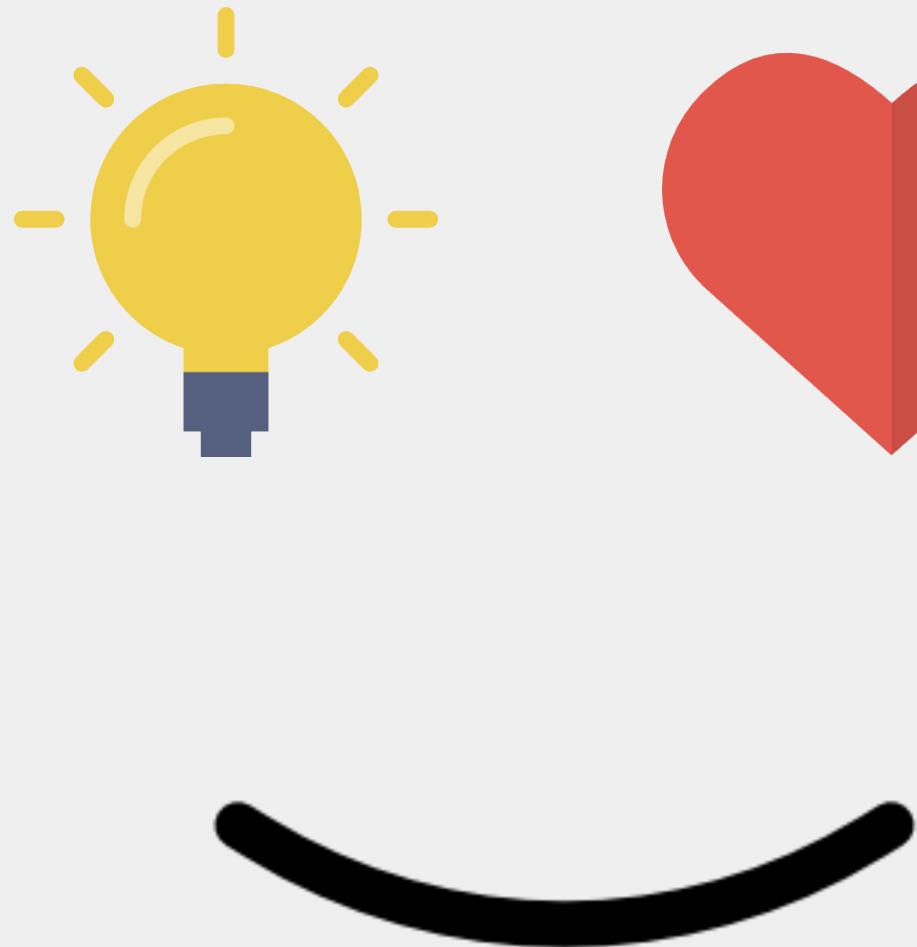
Awards

Media coverage

Social Impact

Care **visually impaired**
Improve their life quality





Smart and
Nice **Ally**