

家
國
瓊

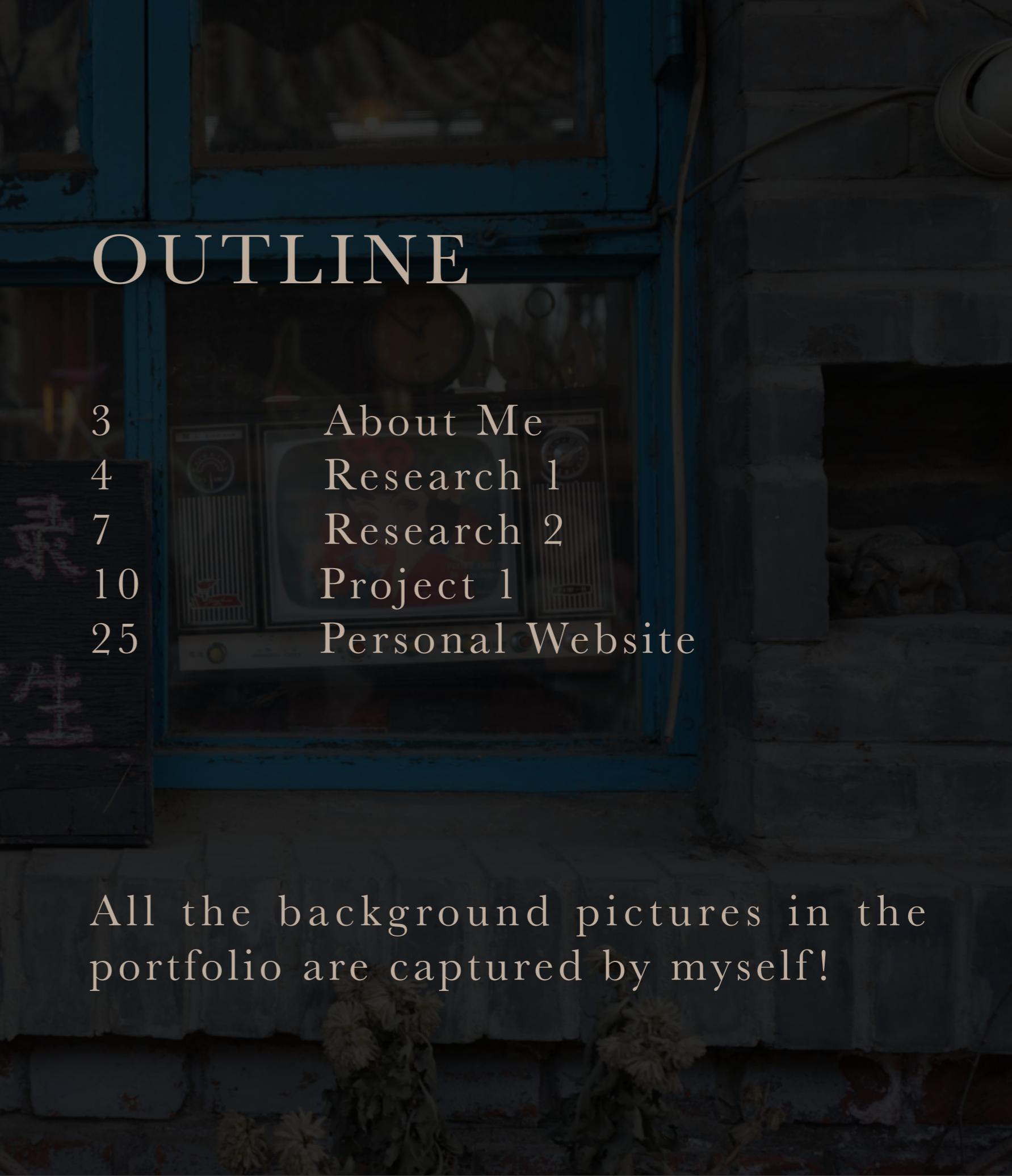
JIACHEN
LI





OUTLINE

3	About Me
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25	Personal Website



All the background pictures in the portfolio are captured by myself!



ABOUT ME

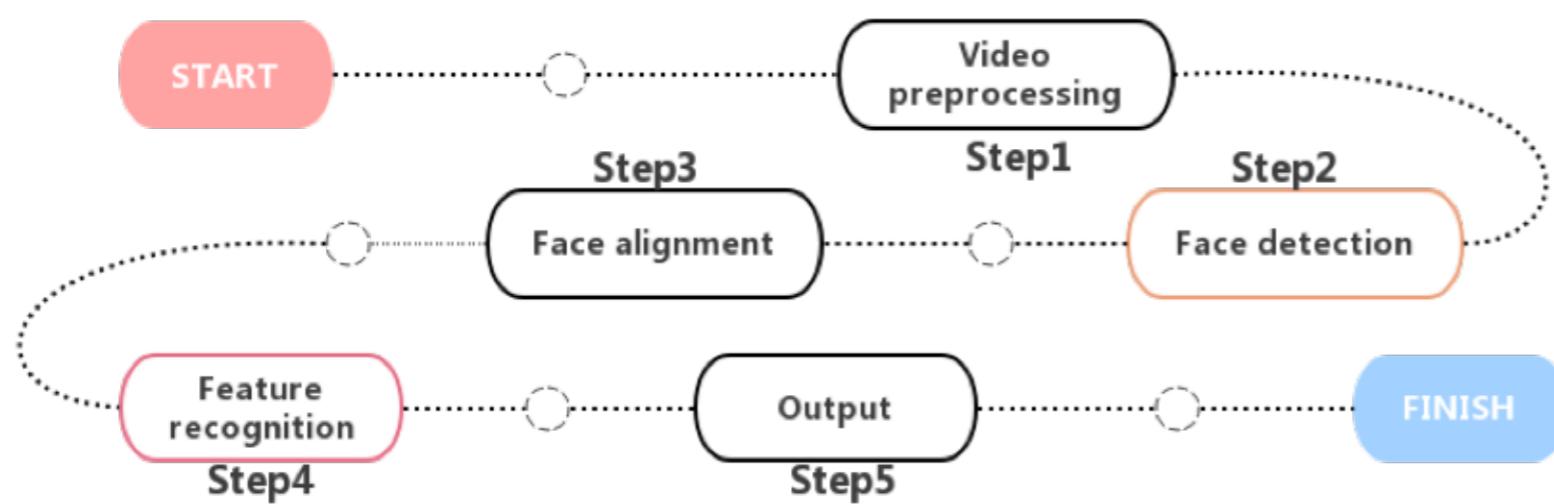
I am **Jiachen Li** from Beijing University of Posts and Telecommunications (**BUPT**), majoring in Electronic Information Science and Technology (**EE**). I am interested in **HCI**. Besides, I love **photography**, sketching and drawing, travelling and my cat Jacob.



1

Kinship Verification On Familyship Face Videos

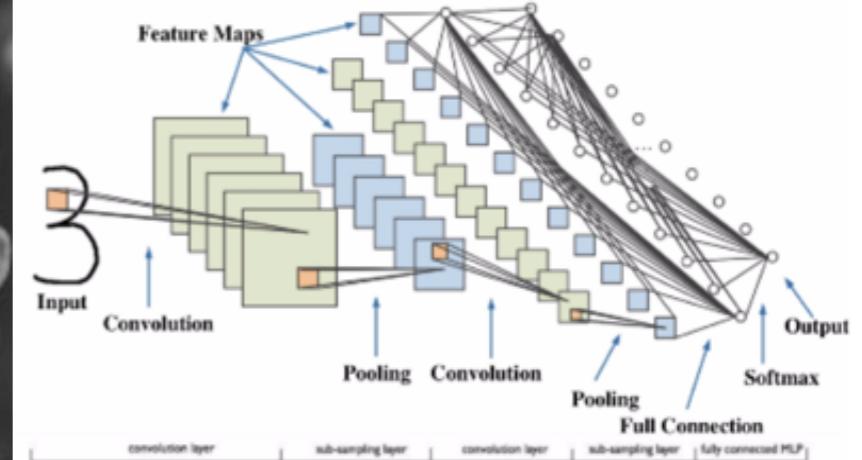
A method to perform **kinship verification** between 3 members of a family based on short **video** clips via **face recognition**.



Proposed an advanced process of face recognition for blood relationship, including extracting key frame, face detection, face alignment and feature recognition using CNN

FFVW (Familyship Face Videos in the Wild): a novel video-based face recognition database with blood relationship labels; parsed video data by family of father, mother and children from raw data with tree-structure





Behaved well in dim light

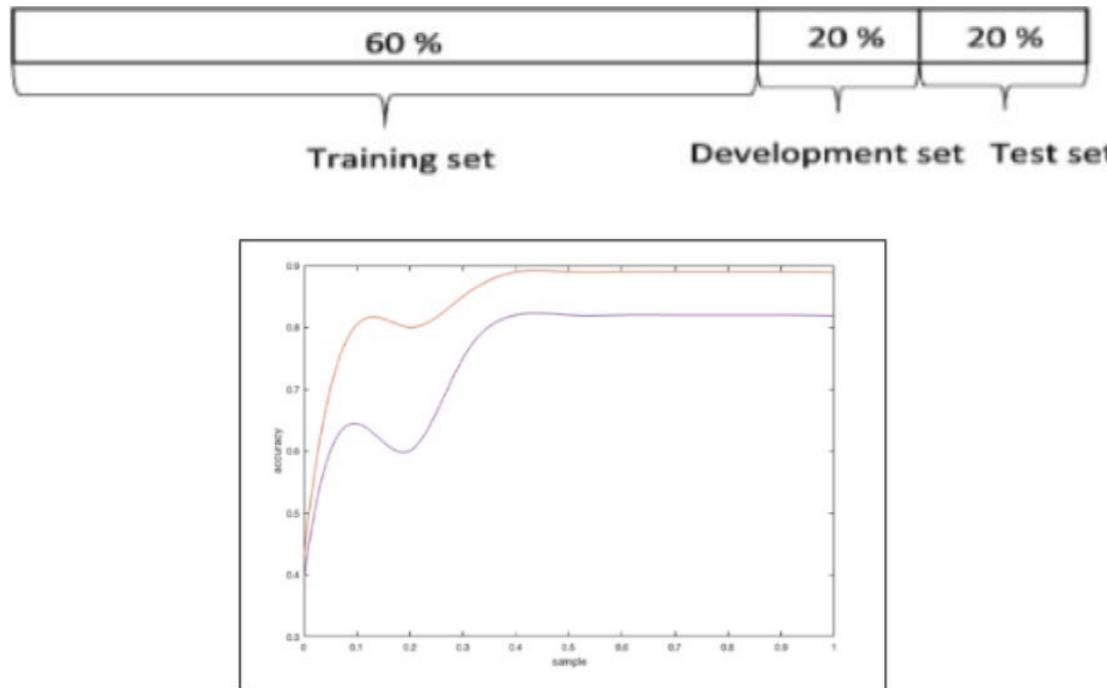


Fig. 10. ROC curve for FFVV with (blue) and without (red) normalizing the brightness of the input images.

83.06% to **89.42%**

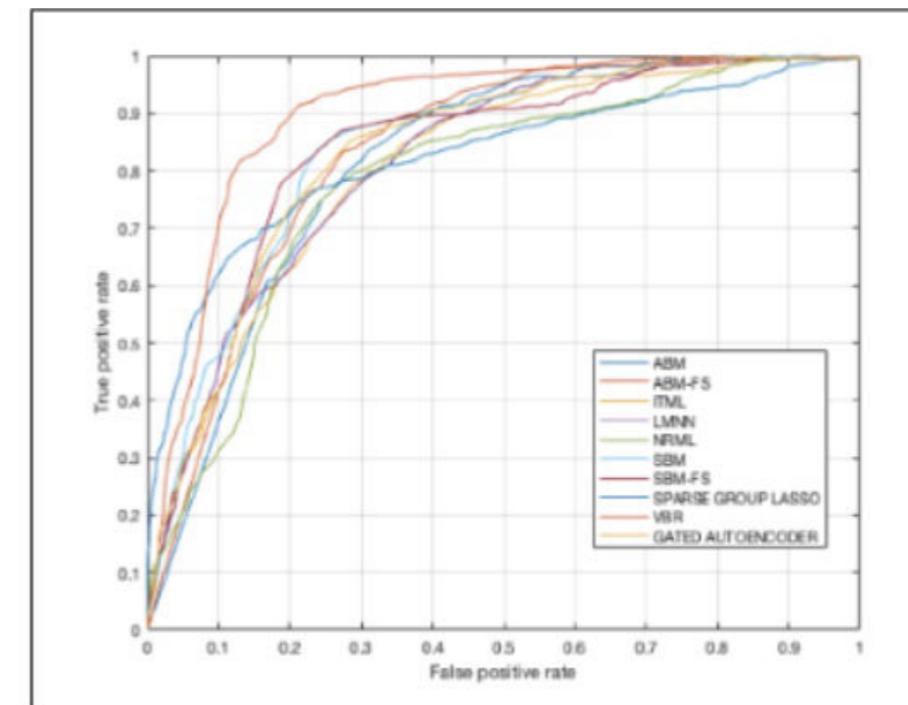
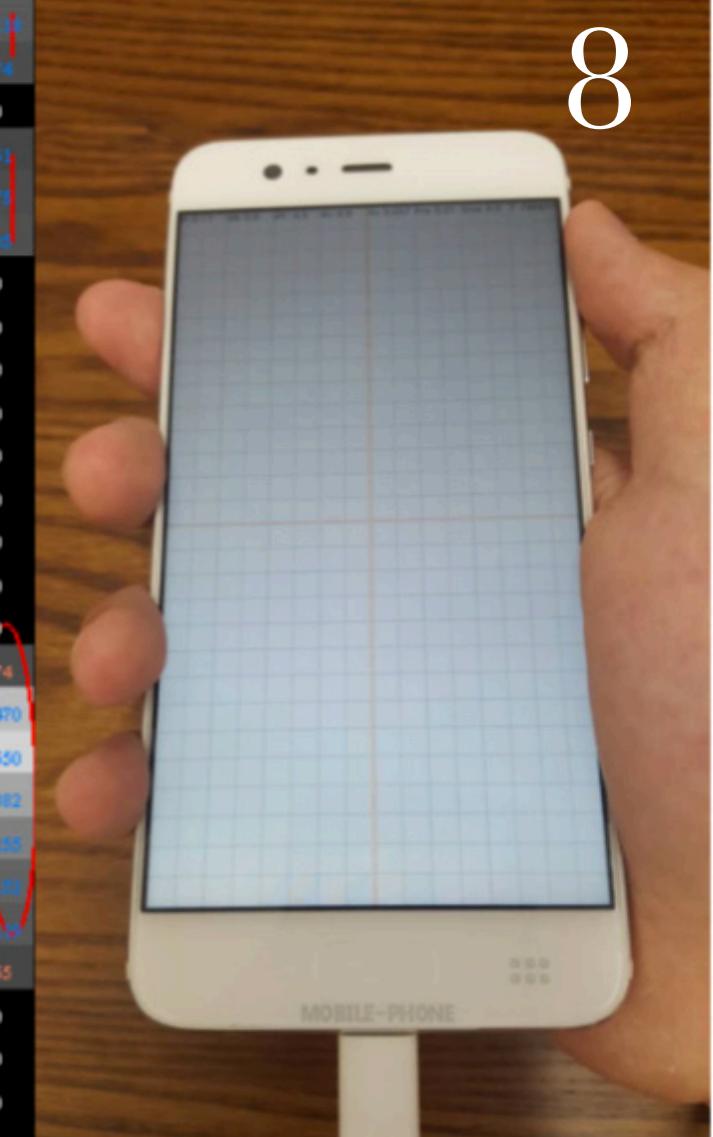
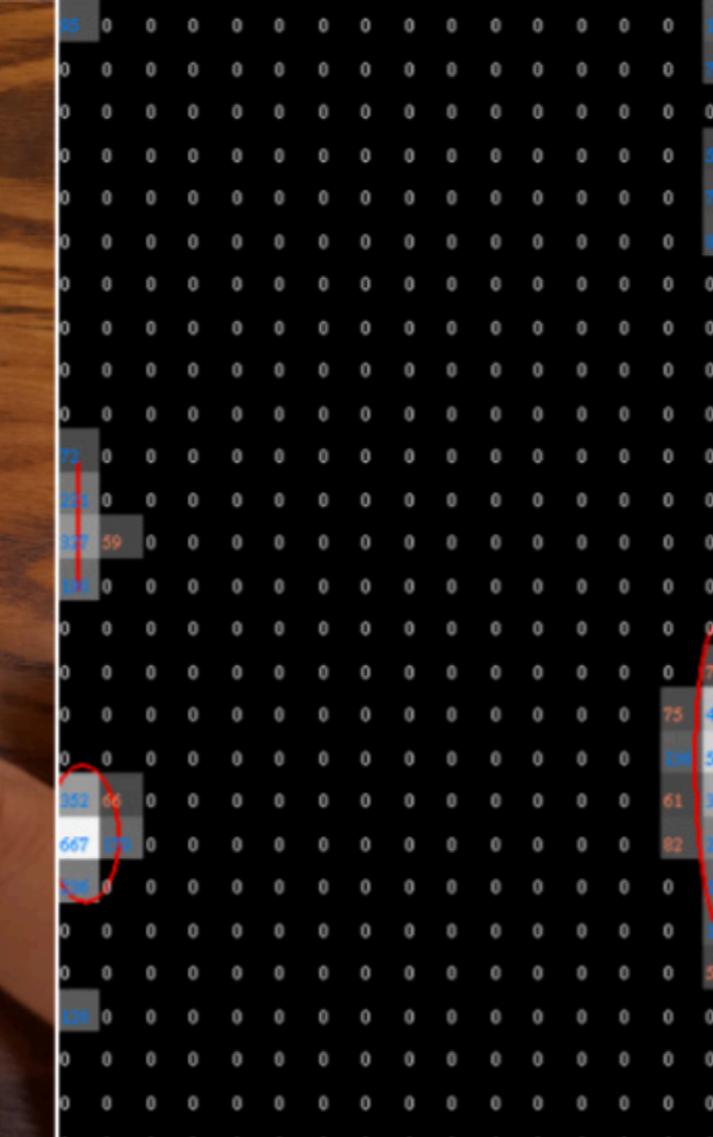
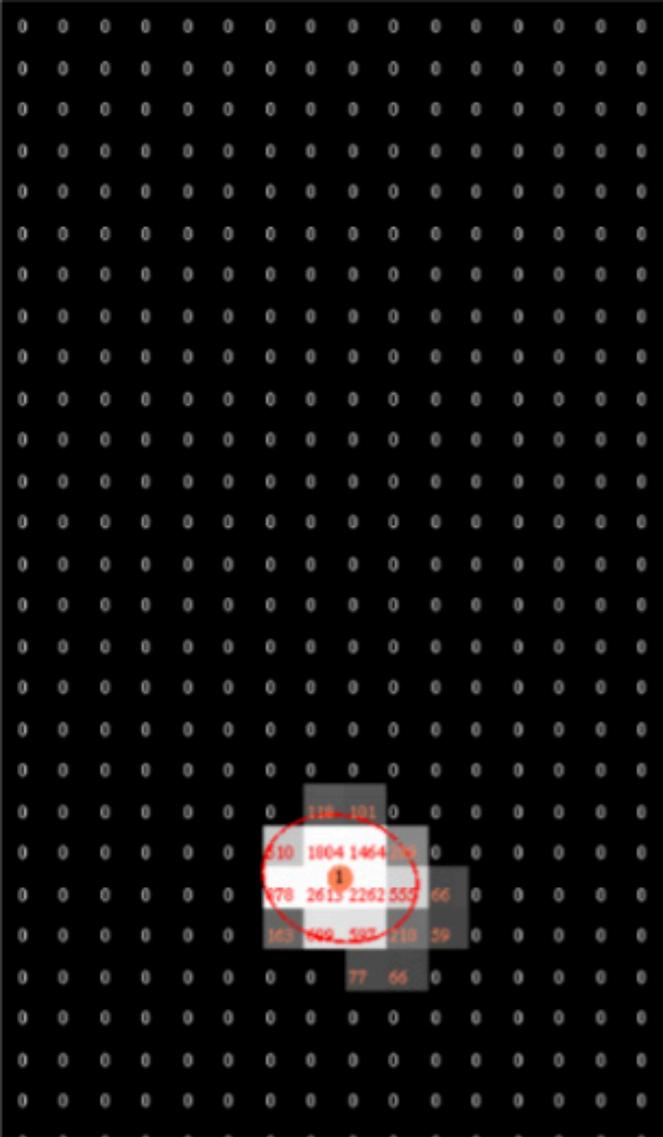


Fig. 11. ROC curve comparison of our approach to current methods.

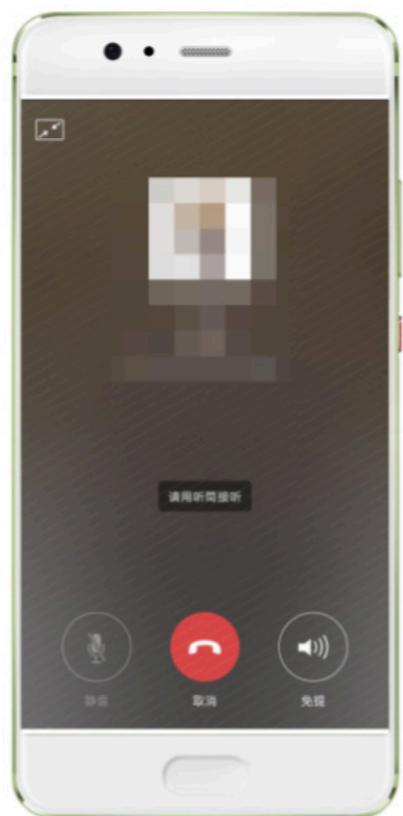
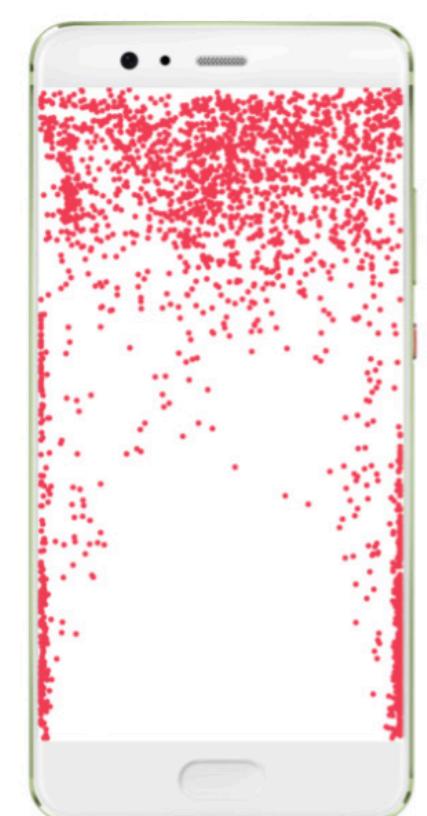


2

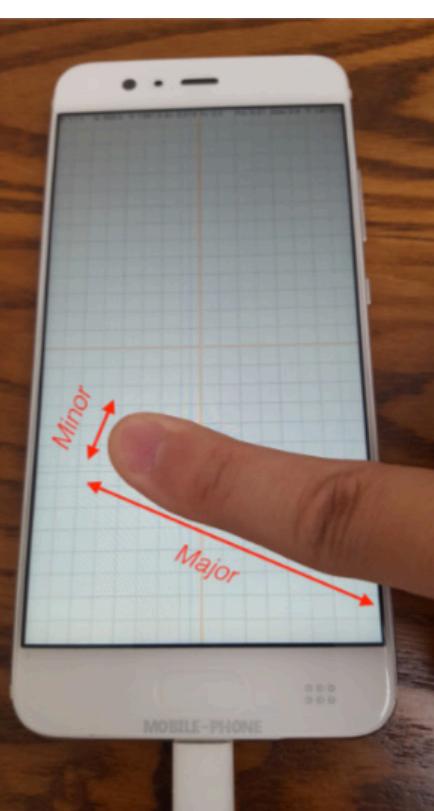
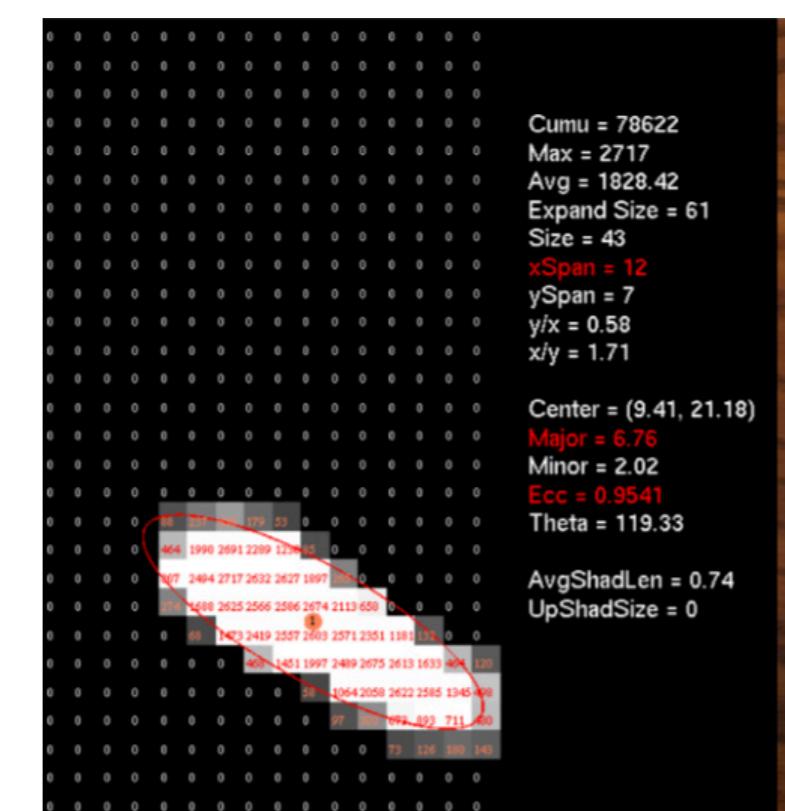
Heterotypic Unintentional Touch Detection

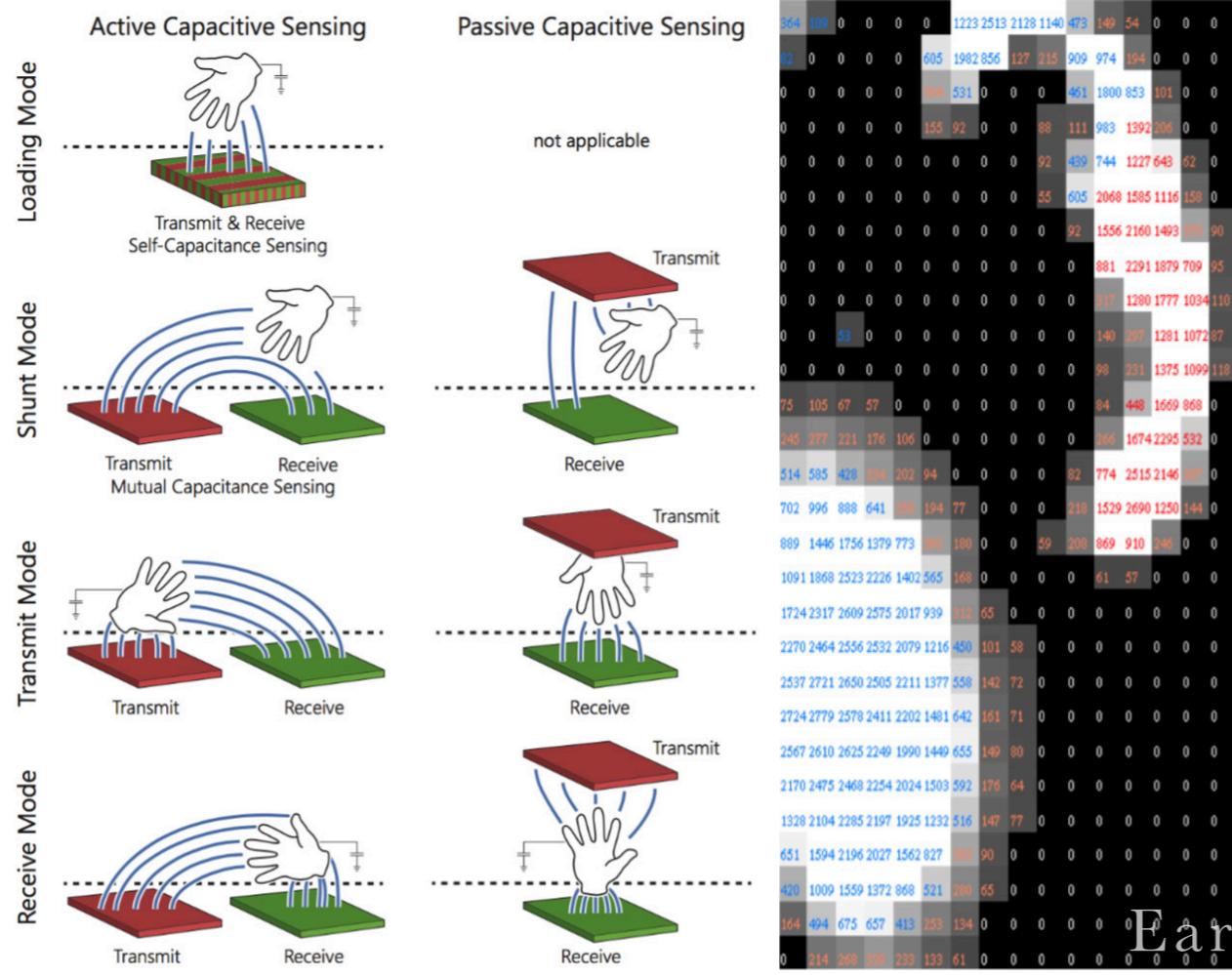


Touch & Edge Touch



Distribution of record points

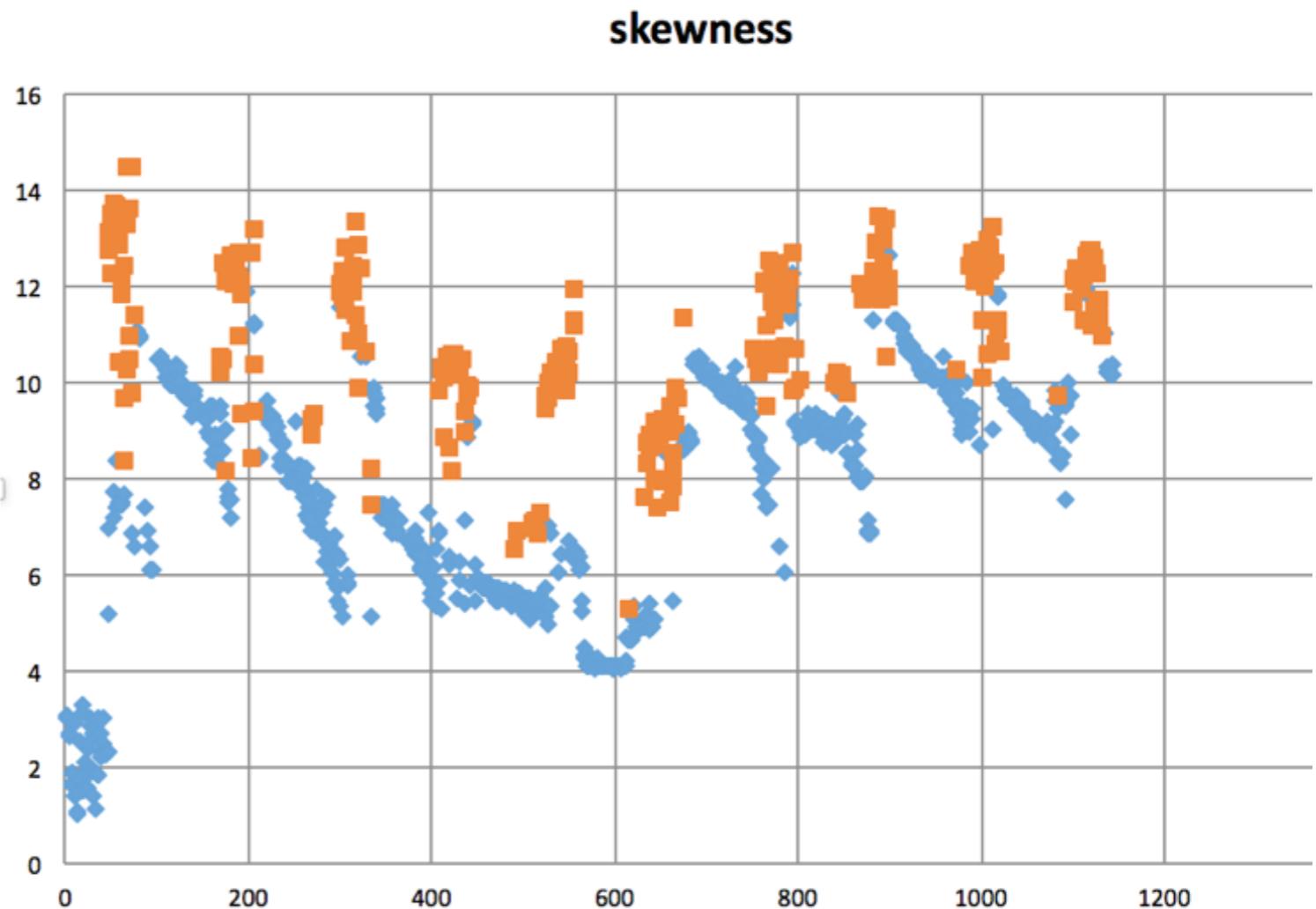




Extracted temporal sequences of the max-capacitive point in every core area; performed FFT analysis and generated the frequency spectrum; discovered disparity of spectrum distribution for intentional and unintentional touches.

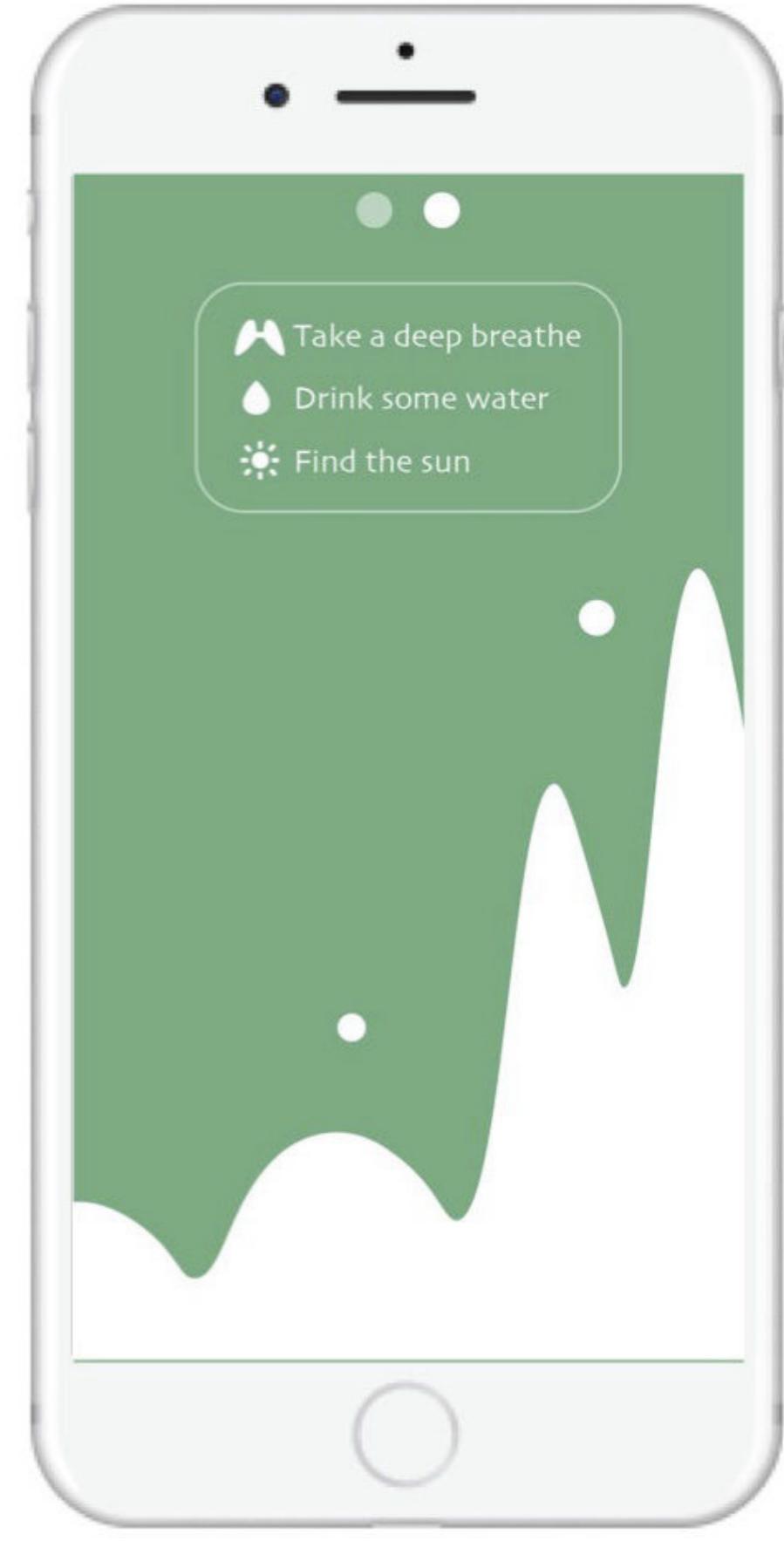
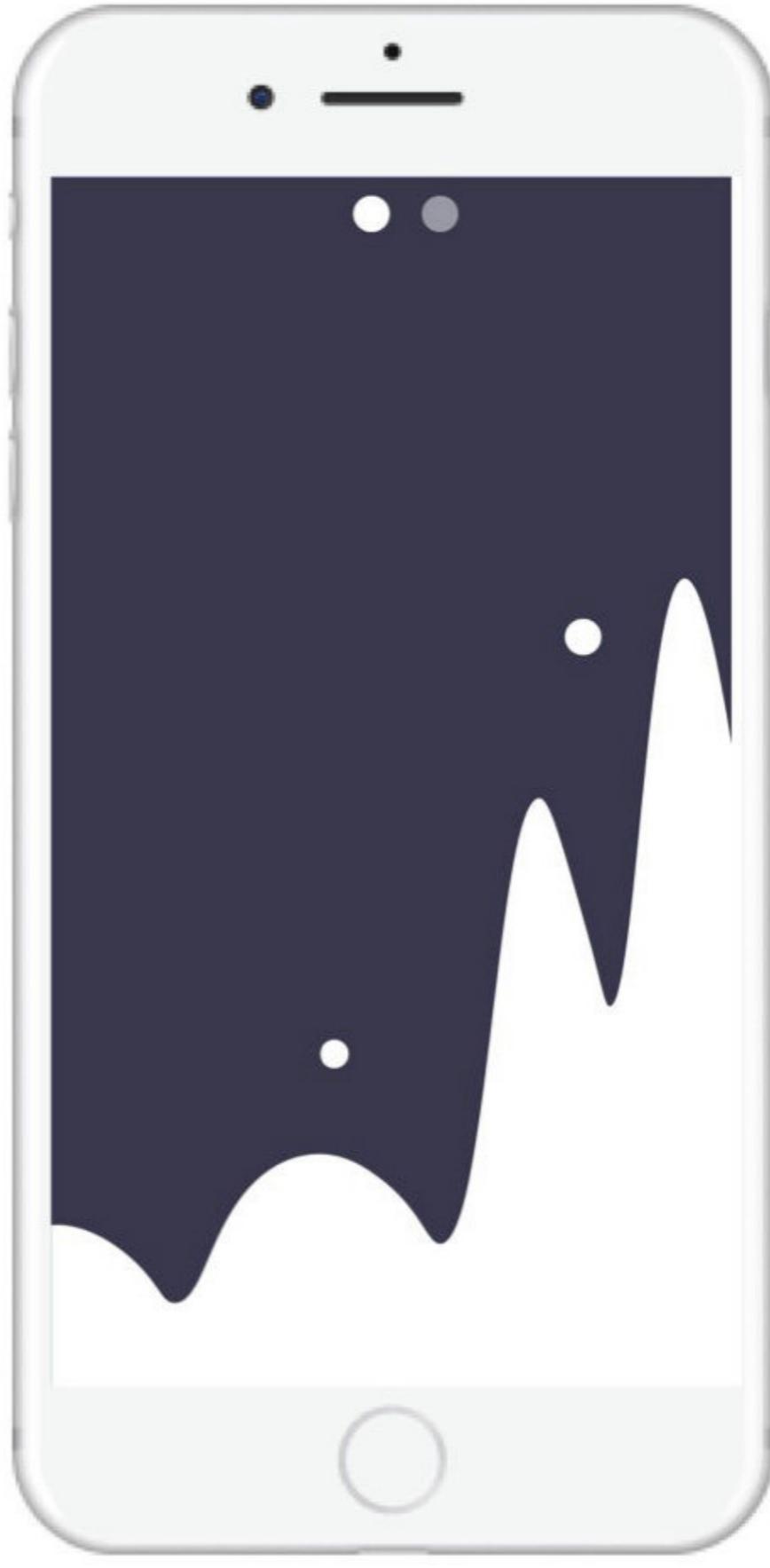
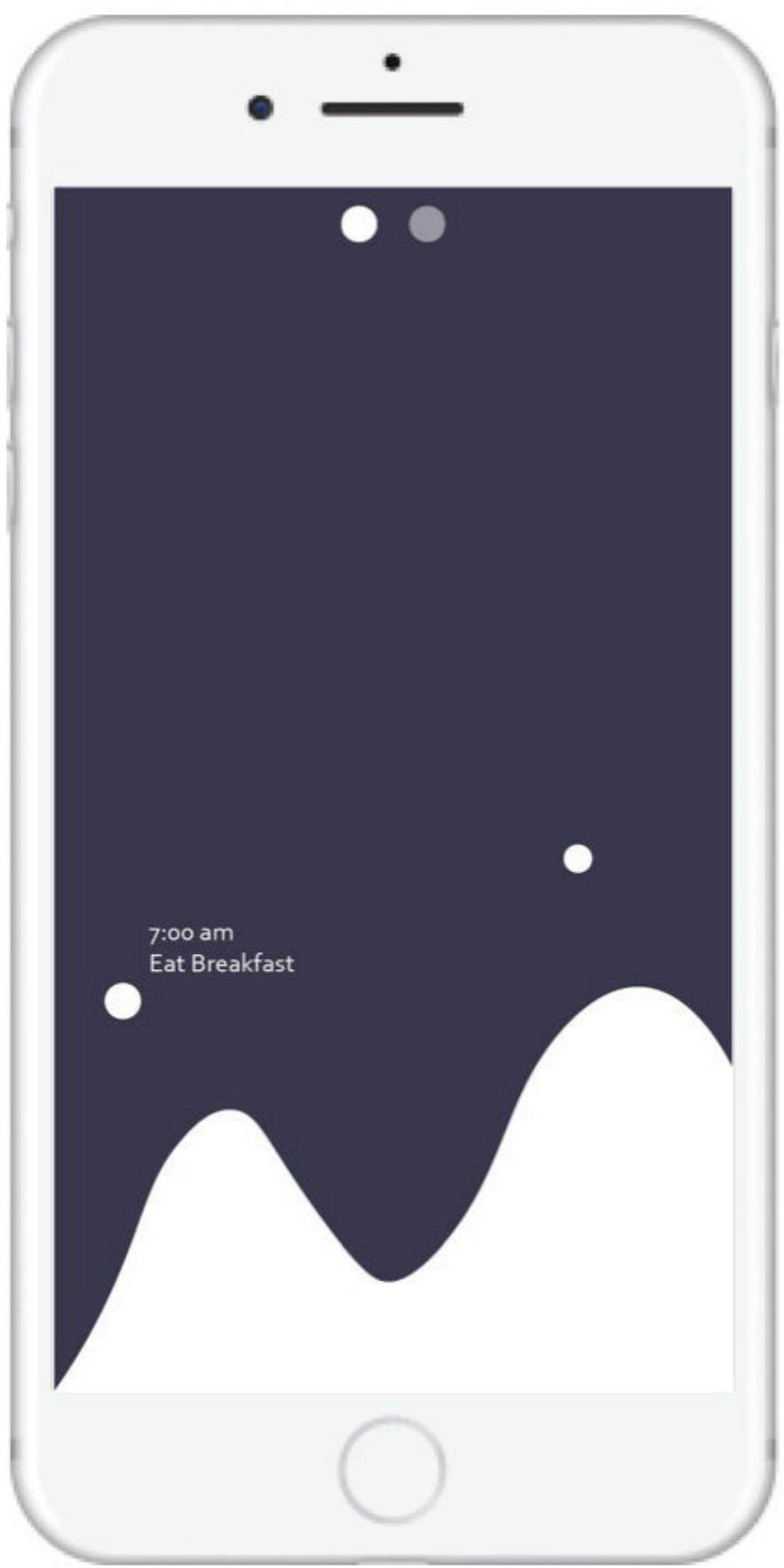
Designed unintentional touch detection algorithm based on 125Hz capacitive sensing signal on phone.

Used flood-fill algorithm and ellipse fitting techniques to detect touch, and recorded touch count and area.

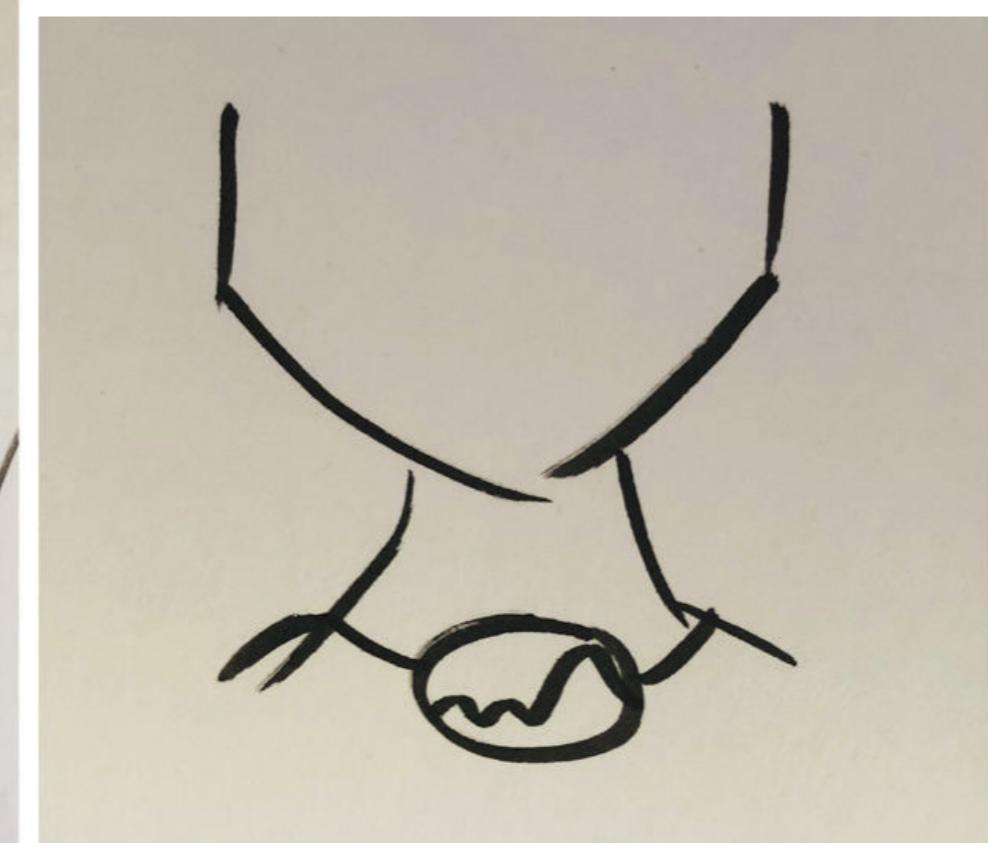
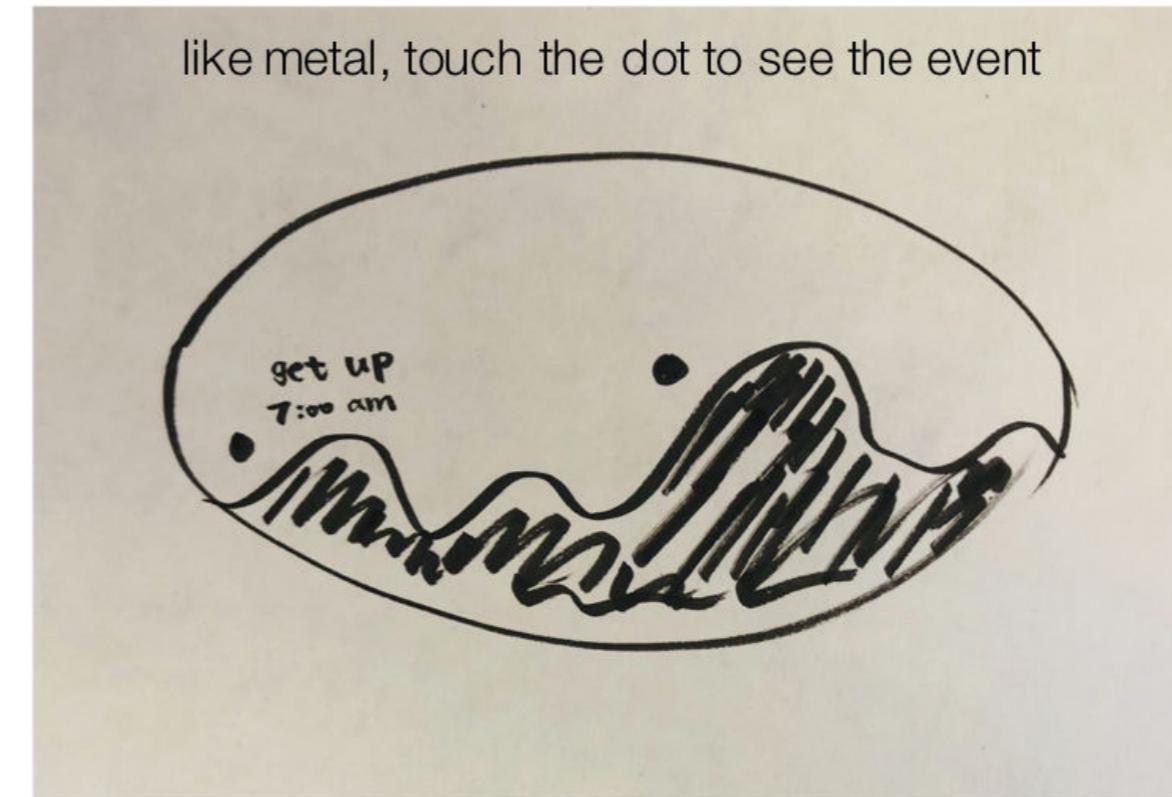




Stress App Design



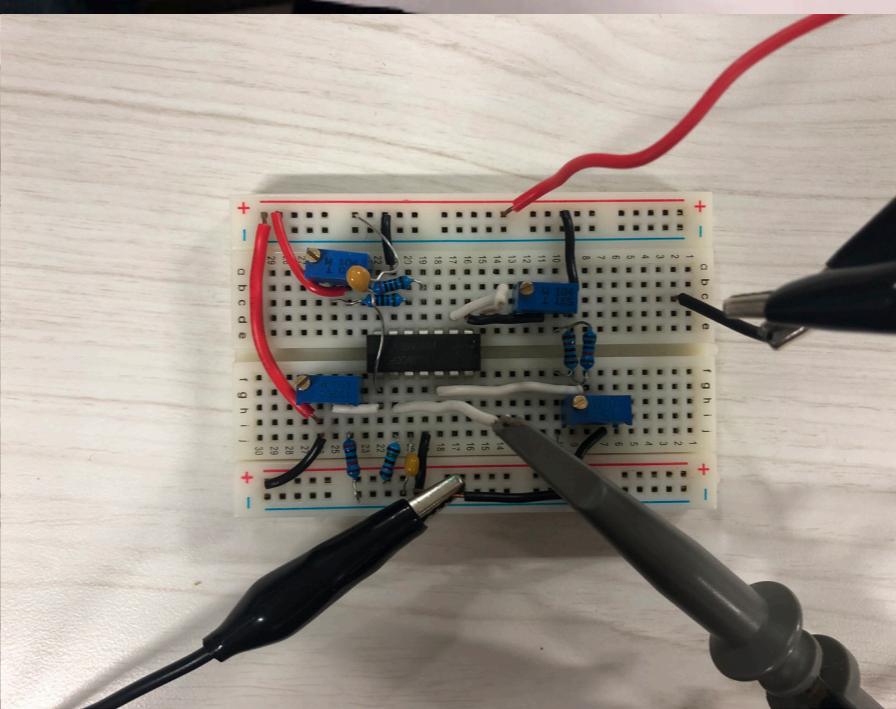
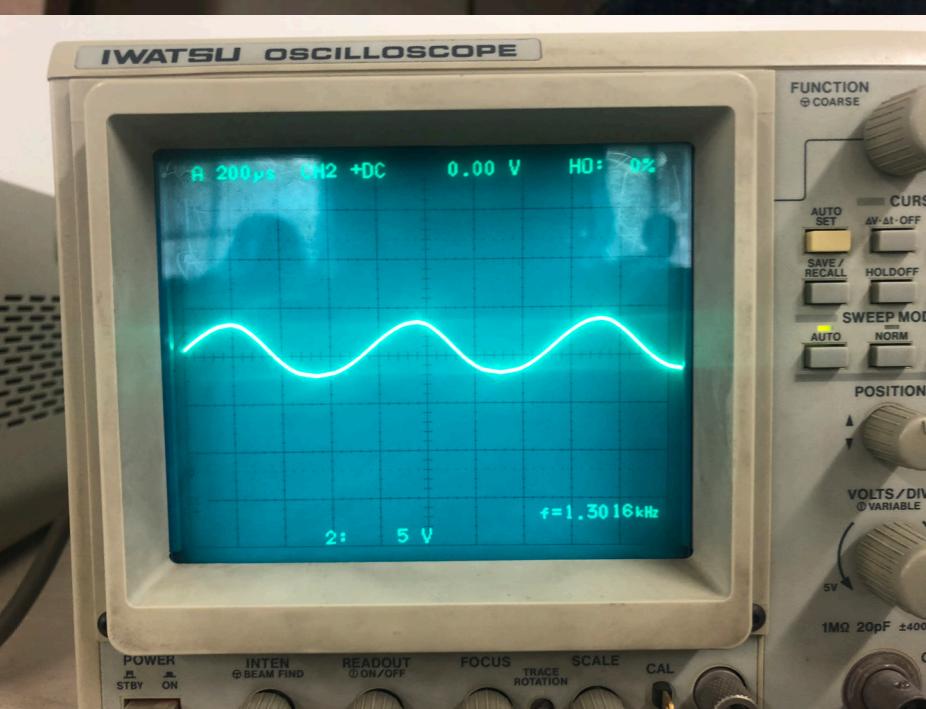
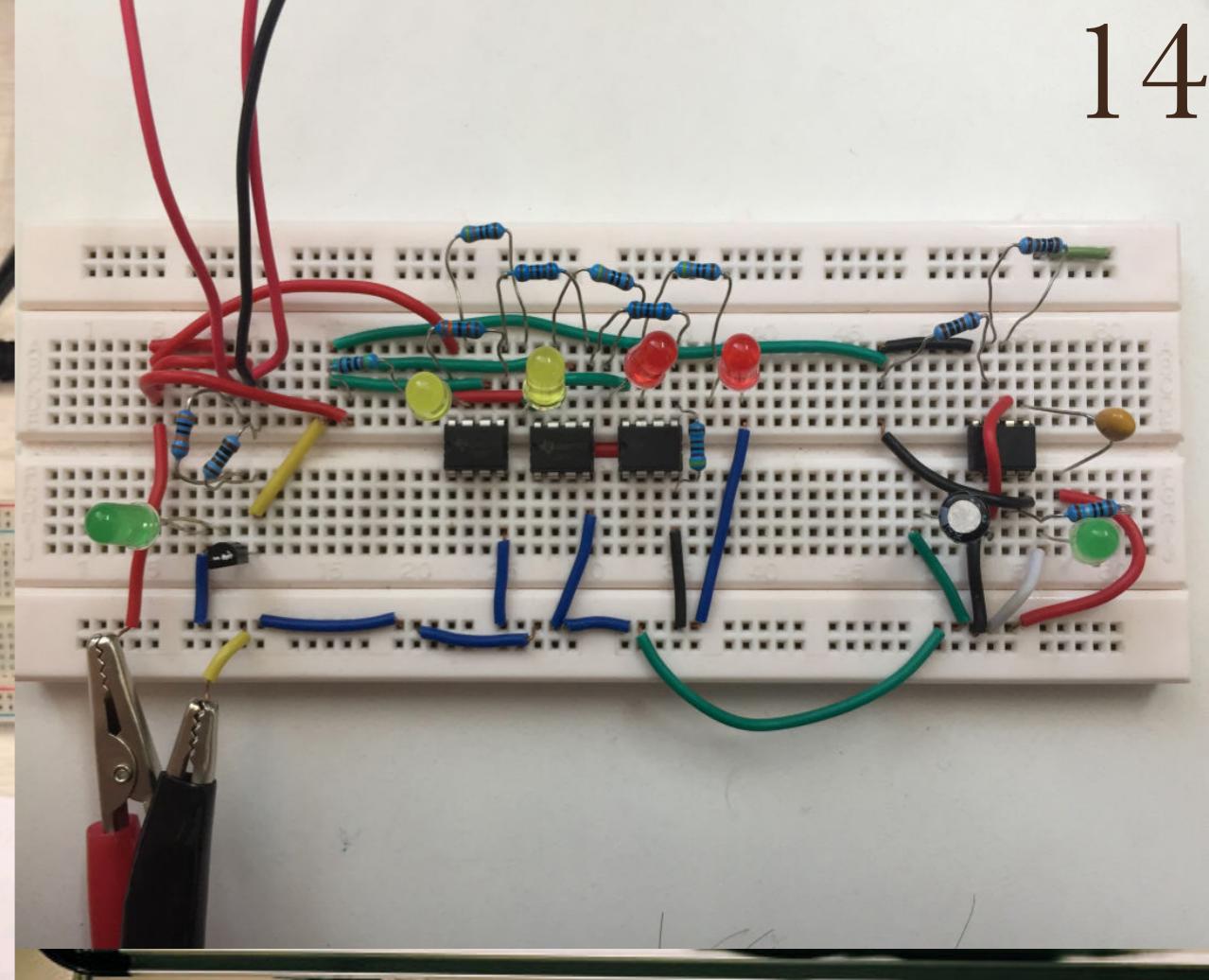
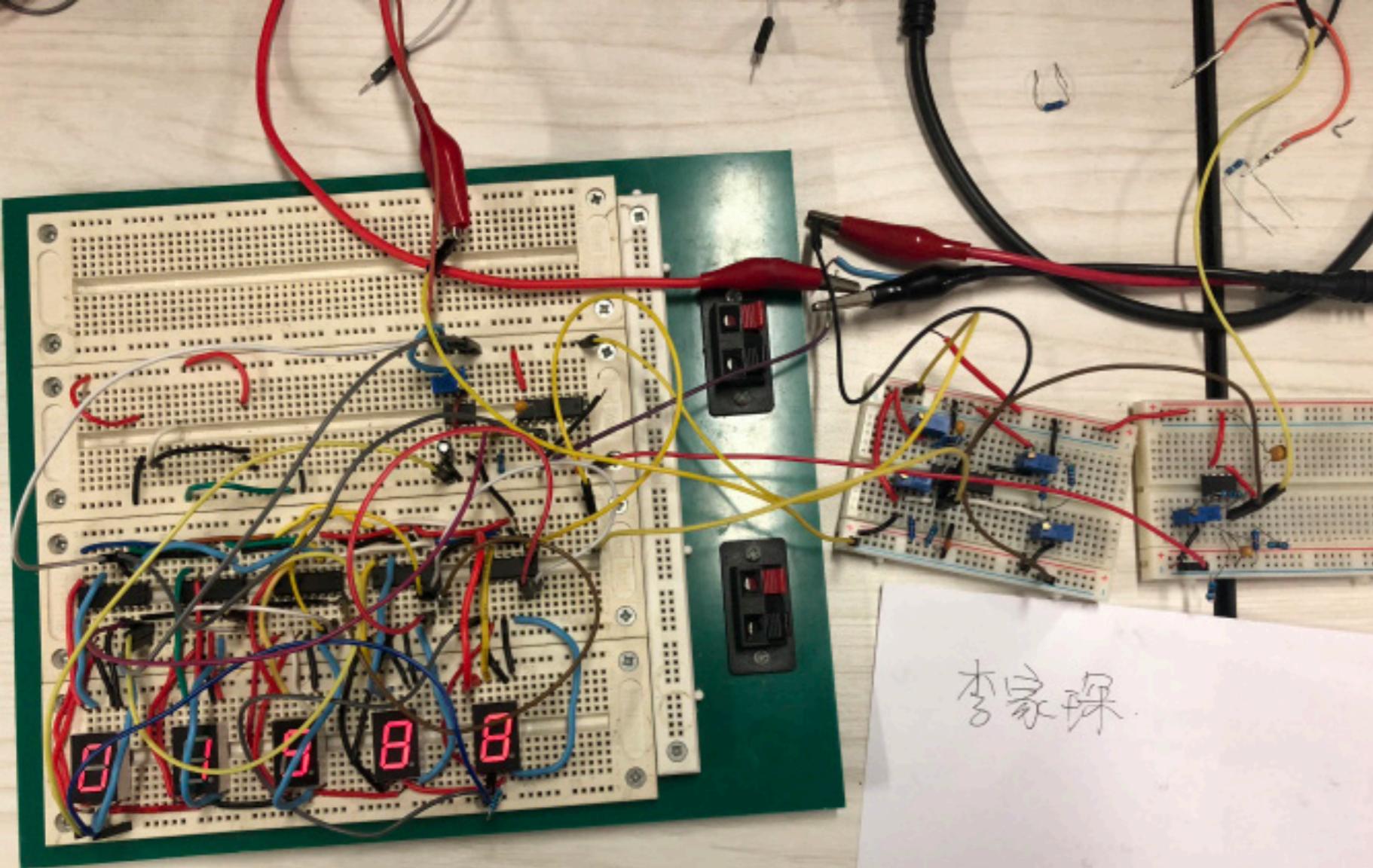
Wearable Sketches

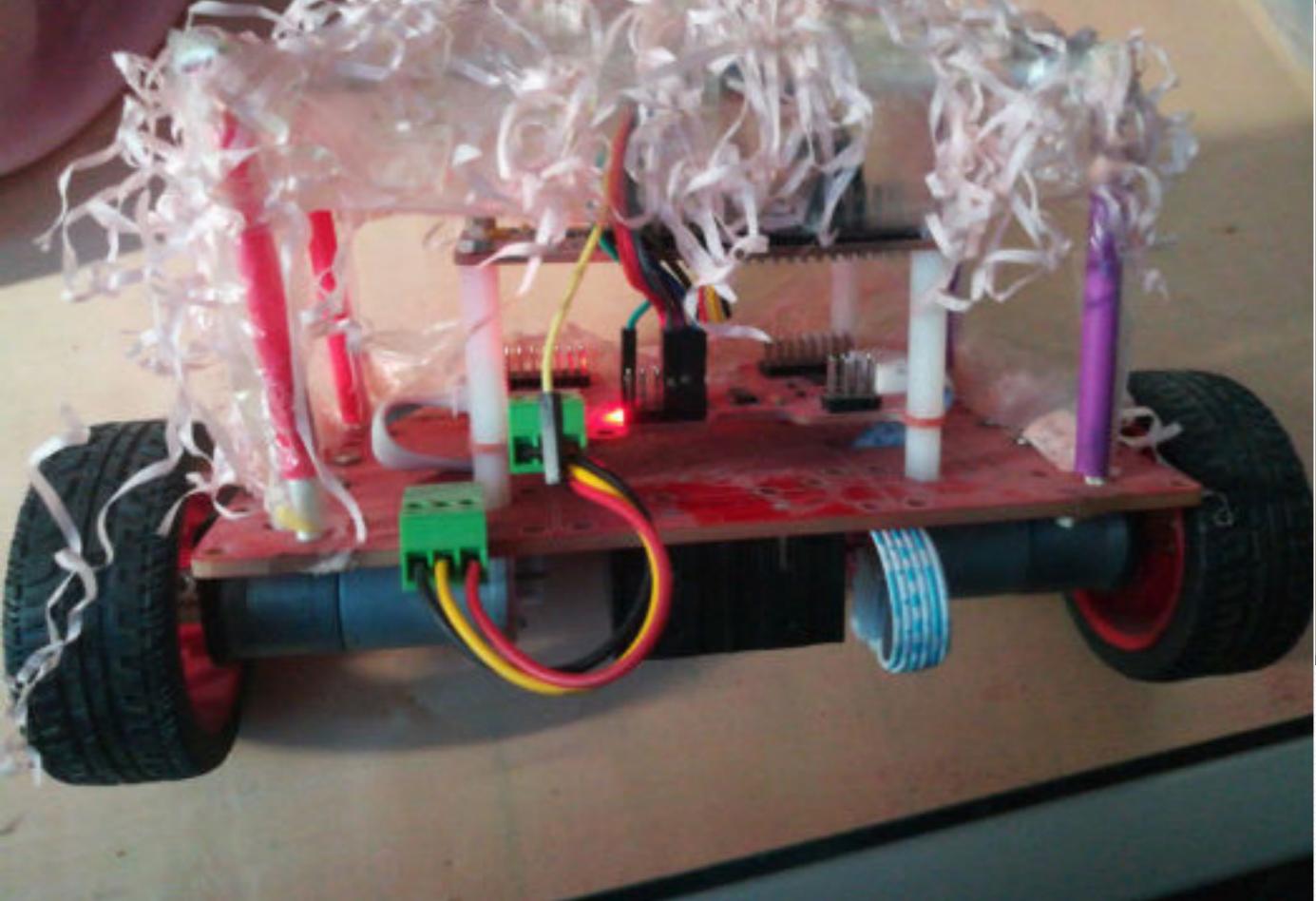




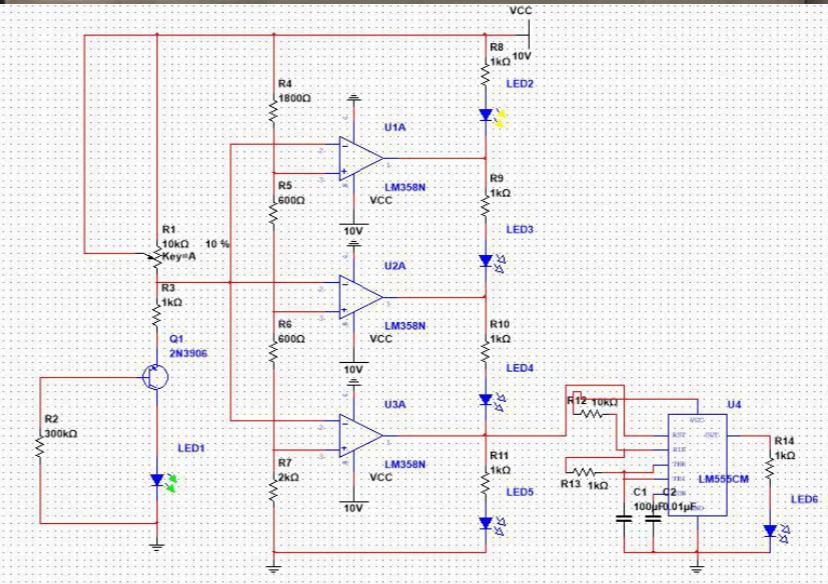
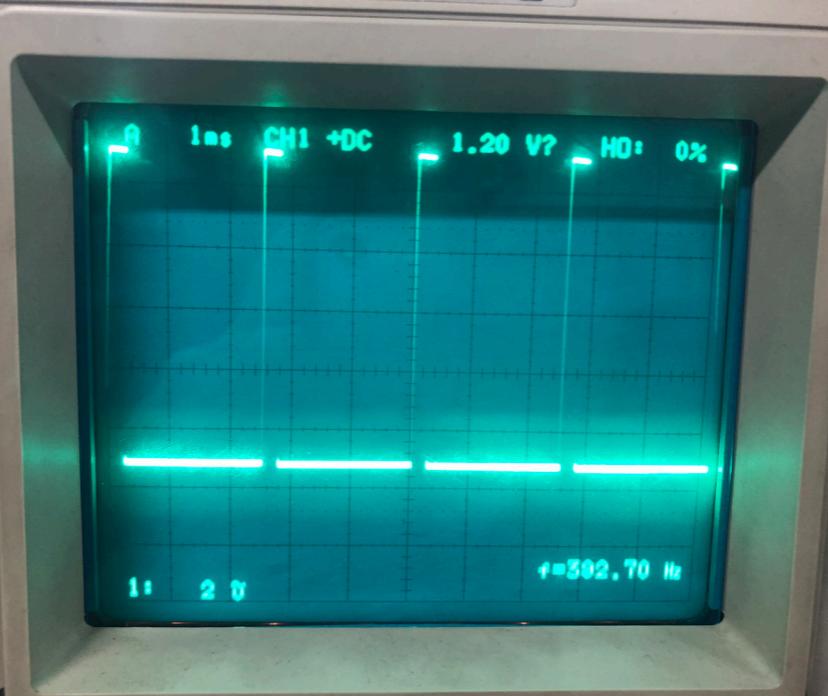
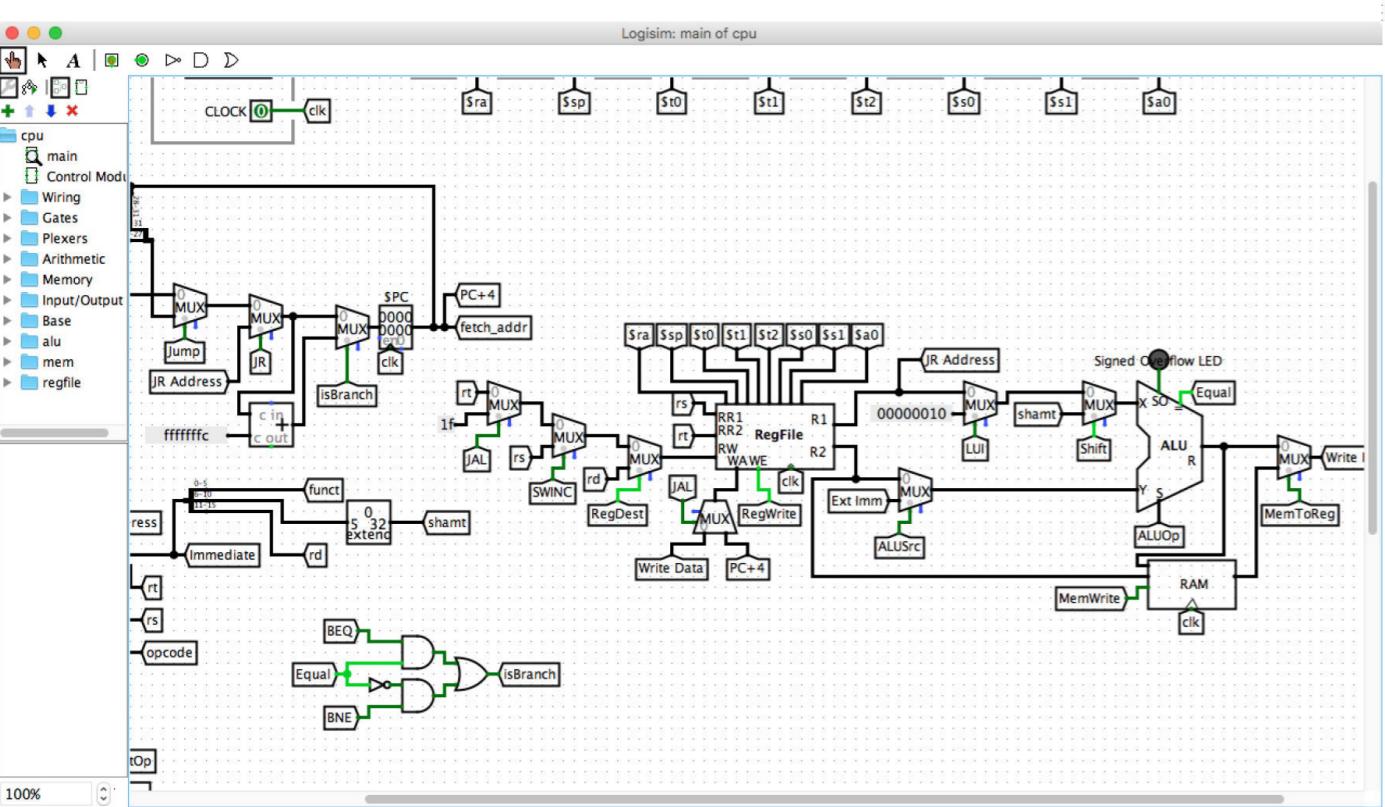
2

Digital Stuff





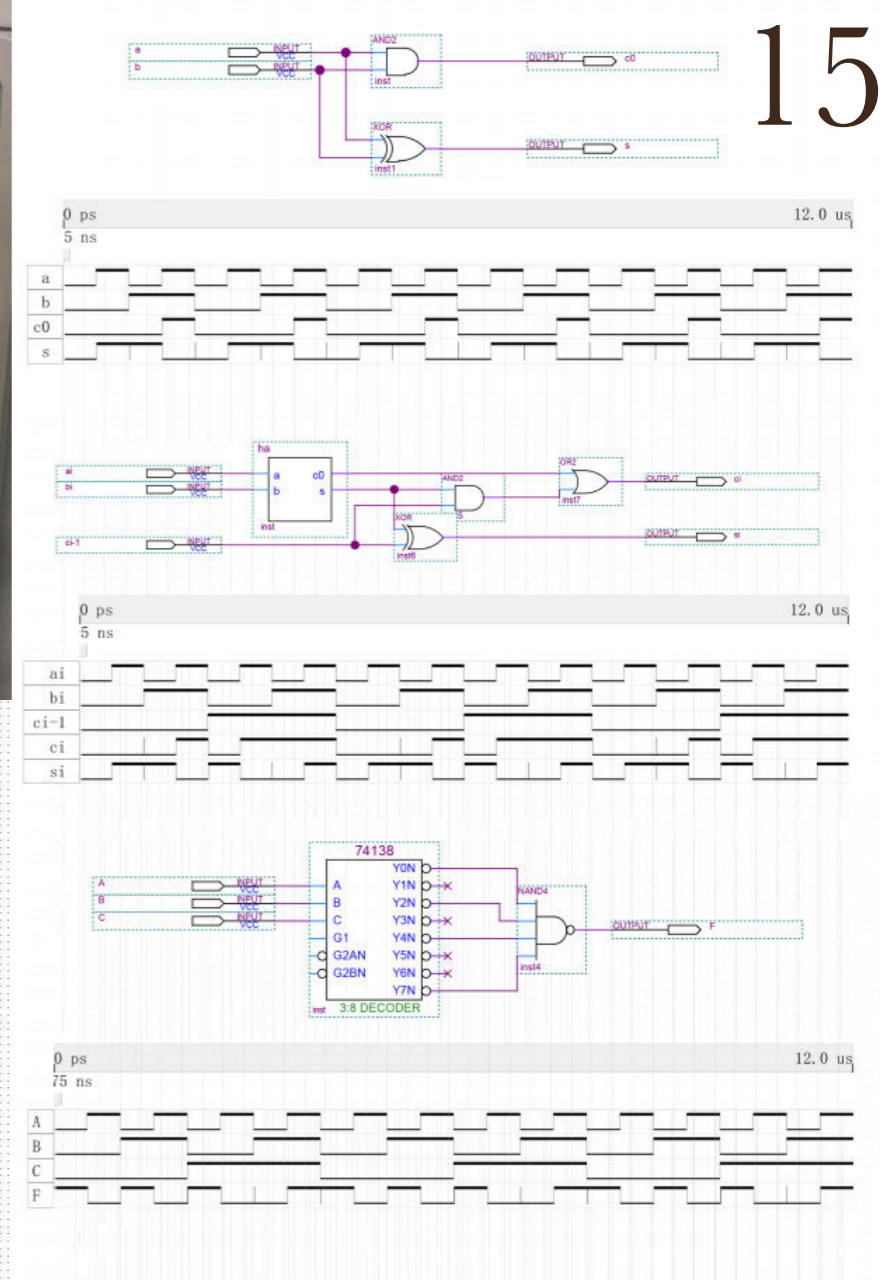
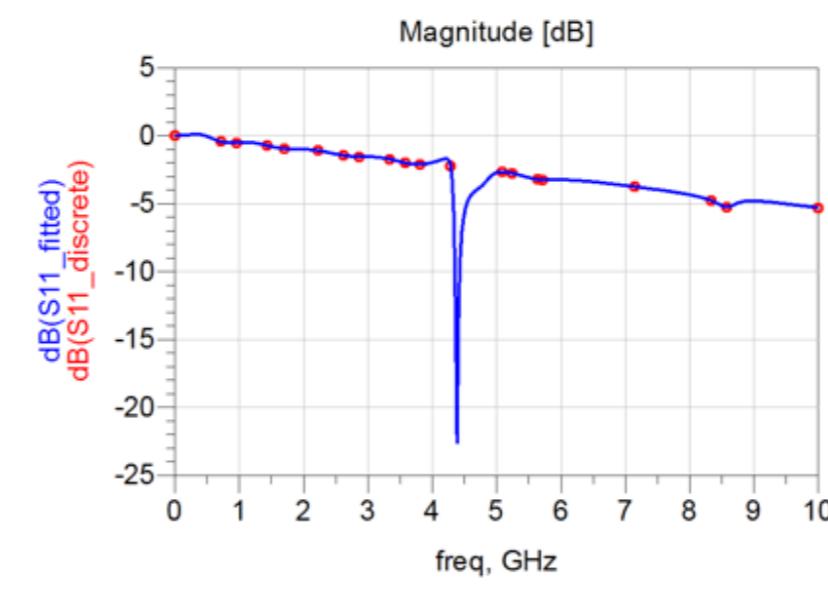
A self-balanced car



Discrete Frequencies vs. Fitted (AFS or Linear)

Adaptively Fitted Points

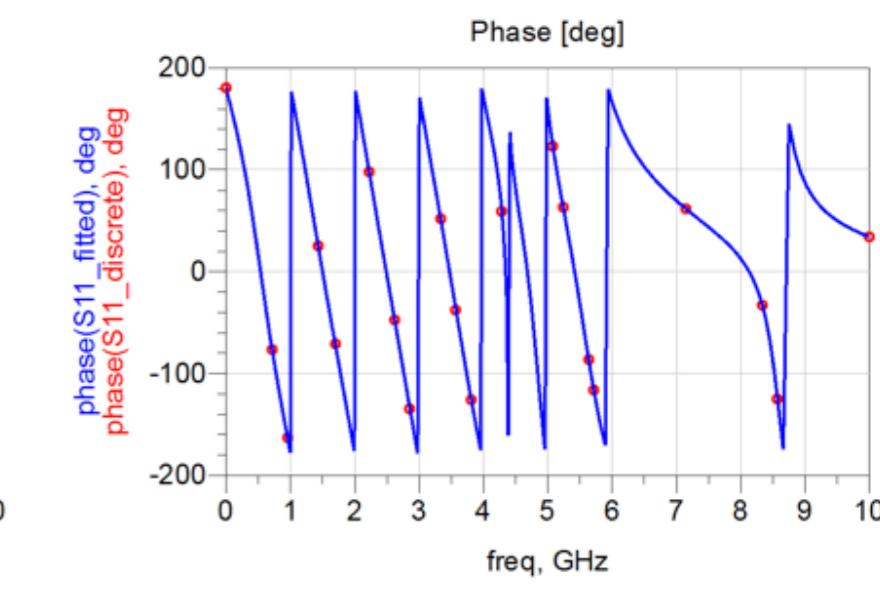
Discrete Frequency Points



Discrete Frequencies vs. Fitted (AFS or Linear)

Adaptively Fitted Points

Discrete Frequency Points



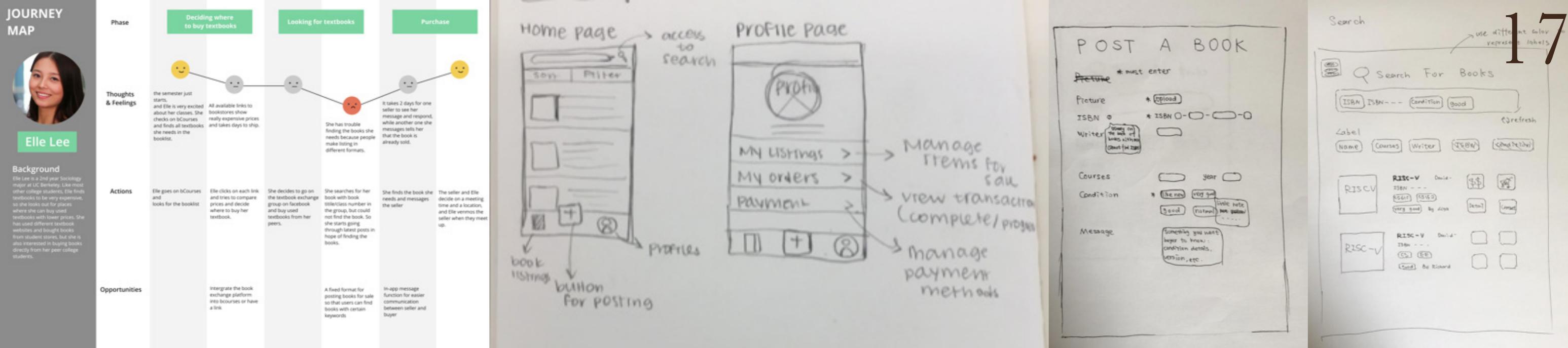
A photograph of a woman from behind, wearing a white jacket and light blue jeans. She is reaching up with her right hand towards the branches of a cherry blossom tree. The scene is bathed in warm sunlight, creating a soft glow. The background is filled with out-of-focus cherry blossoms.

3

TexEx App Design



TextEx



constraints: only VCB students use this app

sign up :

what we want to do: ① make sure he/she is VCB student

② provide some info for the convenience of next step ③

sign up → ③ post books → ④ wait → ⑤ someone buys

info: essential: ① real name

② email → berkeley.edu

③ user name (in case for the same name)

prefer: ① grade

② department/related department

③ courses

④ contact info: phone,

⑤ other

seller

post books / search for books

what should we do: post: connect books with other info: courses, etc.

verify the info: condition ...

search: use minimum words to get the correct result

platform: provide a worldwide standard of books (condition, price)
give both seller and buyer enough flexibility

key word: name, ISBN, writer, version courses, condition, picture

post: essential: name (include version), ISBN, picture, condition

prefer: courses, writer, message (explain the condition, etc.)

search: use all the key words to get the correct book

Some sketches

buyer

① sign up → ② search for books → ③ choose & buy → ④ decide where & when to pick up
↓
⑤ pick up

sign in :

what we should do: ① easy for users to sign in (especially when forgot password)
② difficult for others to sign in

result: everything based on email

info: user name / email + password

use email to get password if forgot

SURVEY of THIS PART :

① survey we should do: ① kinds of condition & their standard & prices (e.g. very good 50%)
(collect info on the web) ② numbers of steps ③ each website use to get the correct book
④ graphic design principle: layout, color, ...

② survey on users: ① imagine you are the buyer ...

1° keyword: which do you like most to search for books?

2° condition: ← if What do you think is a 'good' book?
How much do you think should a 'good' book cost?

3° price: prefer price decided by platform/seller?

choose a grade and the price
will be decided by the grade

e.g. All 'good' book is 50% of original price

TextEx

The collage illustrates the TextEx app's interface across different screens:

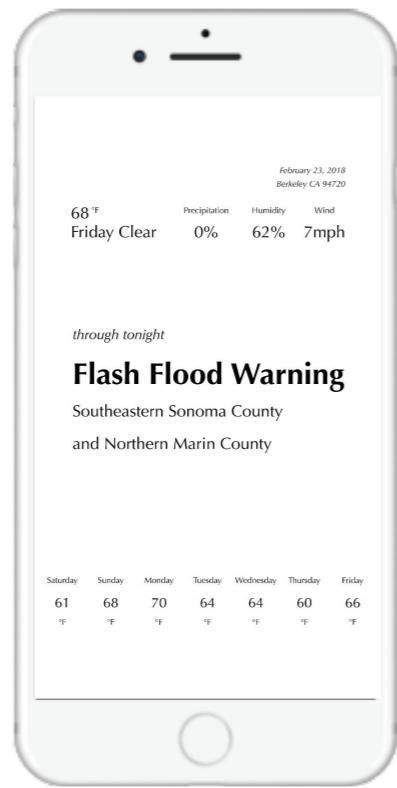
- Home Screen:** Shows the Berkeley logo and CalNet Authentication Service.
- Sign In:** Features fields for CalNet ID and Passphrase, and links for SIGN IN, HELP, and Sign In with MAP@Berkeley ID.
- Forgot CalNet ID or Passphrase?**: A link for users who have forgotten their credentials.
- Copyright Notice:** Copyright © 2018 UC Regents. All rights reserved.
- Search Results:** Shows recent searches for "Macroeconomics - 8th Edition", "Math 110", and "Calculus". It lists books like "Calculus - 8th Edition" by James Stewart and "Calculus (Multivariable) - 2nd Edition" by Jon Rogawski.
- Book Detail Screen:** Displays detailed information for "Calculus (Multivariable) - 2nd Edition" by Jon Rogawski, including price (\$41.71), condition (Very Good), and courses (Math 53, Math 110). It also shows a barcode and ISBN information.
- Profile Screen:** Shows a user profile for Daniel Smith, featuring a photo, a message bubble, and a list of options: Reviews, Order history, My booklist, Help center, and Settings.
- Message Screen:** A conversation with "Ashley" about a book listing. Ashley asks for more pictures, and the user responds with "Awesome. Thank you!".
- Barcode Scanning:** A camera viewfinder showing a barcode being scanned, with a green circular overlay indicating the center of the frame.
- Photo Uploader:** A screen for adding photos to a listing, with a placeholder "Tap to add your cover photo".
- Condition Selection:** Options for selecting the book's condition: Like New, Very Good, Good, and Acceptable.
- Pricing:** A section showing the price (\$23.52) and suggested price (\$23.52).
- Action Buttons:** Large blue buttons for "LIST" and "SAVE" at the bottom right.

A photograph of a large tree trunk in a park. Sunlight streams through the surrounding trees, creating bright rays and lens flare. The ground is covered in grass and fallen leaves.

4

Weather App Design

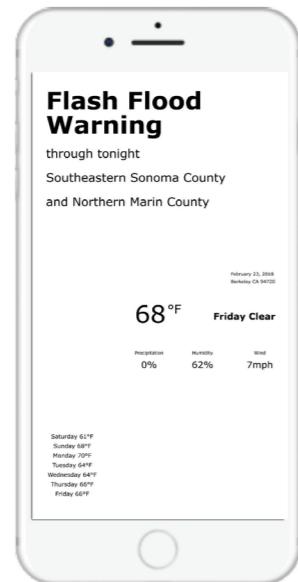
Safe & Efficient



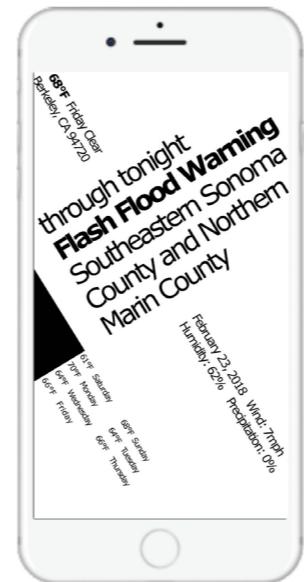
Fierce & Dynamic



Safe & Efficient



Fierce & Dynamic



Fierce & Dynamic



A close-up photograph of lavender flowers in a field, showing dense purple spikes.

5

A blurred photograph of a lavender field, with the number 5 overlaid on the right side.

Interesting Application

Race car game

Unity



BMI calculator

9:15 PM

iOS

40

kg

体重

170

cm

身高

70

cm

腰围

1

女0 男1

性别

消息显示区

Server: kk
Server: New connection from localhost.....
kk: kjhv
Server: New connection from localhost.....
op: pppppppp

Conference room

Java



Test your calculation

Number of Exercises:

Correct:

Exercise:

Java

Wrong:

Answer:

Time:

Result:

START

NEXT

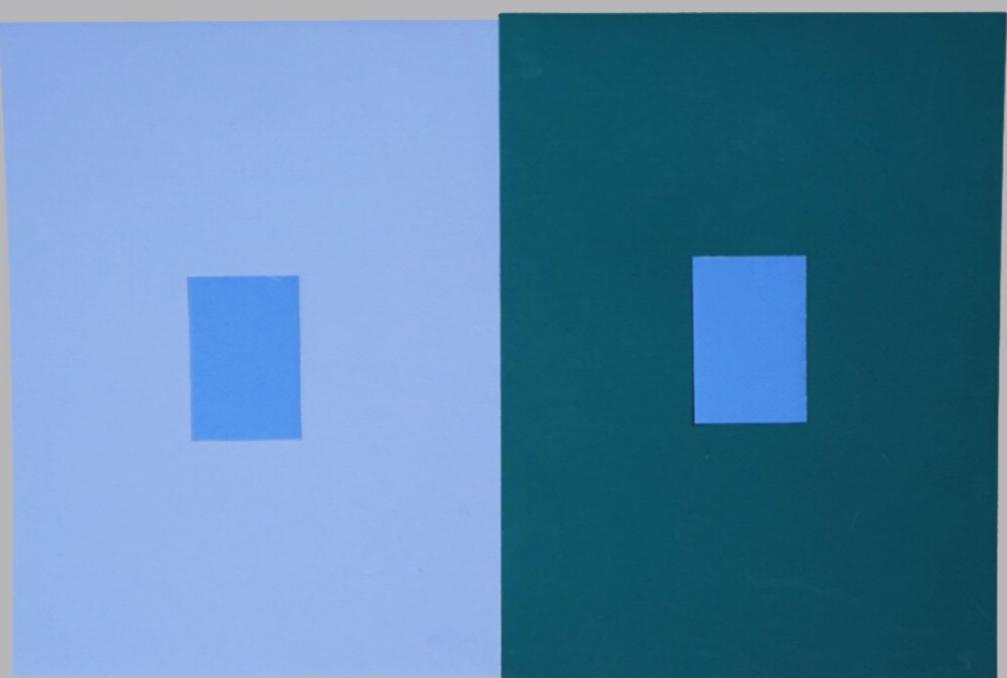
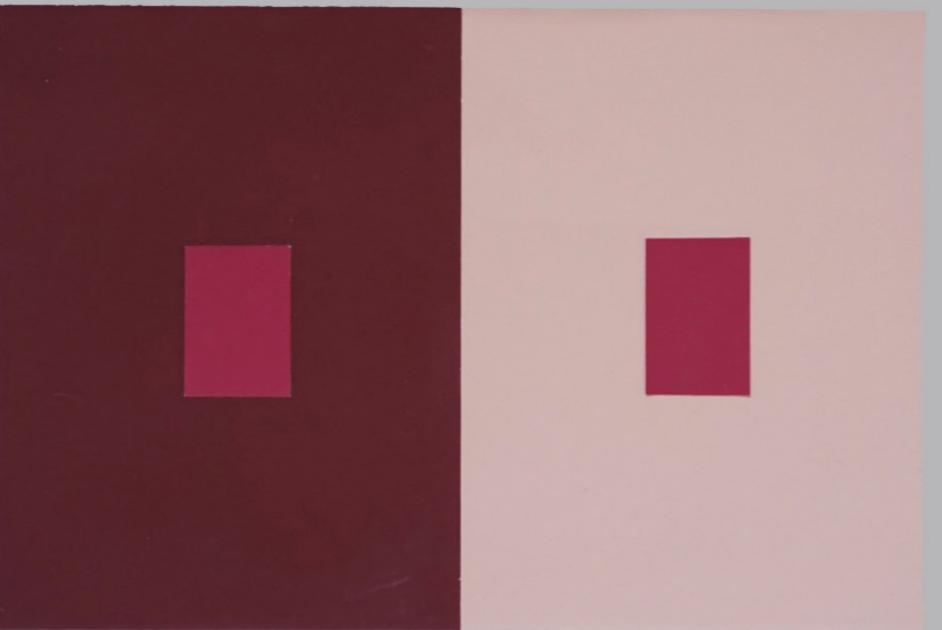
EXIT

1. Input how many exercises you want to complete and press START on the screen
2. Enter the answer and press ENTER on the keyboard
3. View if you're correct and press NEXT and START on the screen
4. Repeat until you've finished the test
5. Press EXIT on the screen at any time to exit the test
6. Round to 2 decimals place



6

Some Craft



A close-up photograph of a cockatoo's head, showing its white feathers, yellow patch around the eye, and a large, hooked beak.

7

Personal Website

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise2018111_131456/20181201_154508/index.html

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise2018111_131456/20181201_154508/index.html

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise2018111_131456/20181201_154508/page1.html

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise2018111_131456/20181201_154508/page2.html

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PROJECT

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise201811_131456/20181201_154508/page3.html (2017-2018)

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Photography

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise201811_131456/20181201_154508/page4.html

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moving forward, turning left/right and stopping.

blood relationship labels.

Proposed an advanced process of face recognition for blood relationship.

[Learn More](#)

[Learn More](#)

[Learn More](#)

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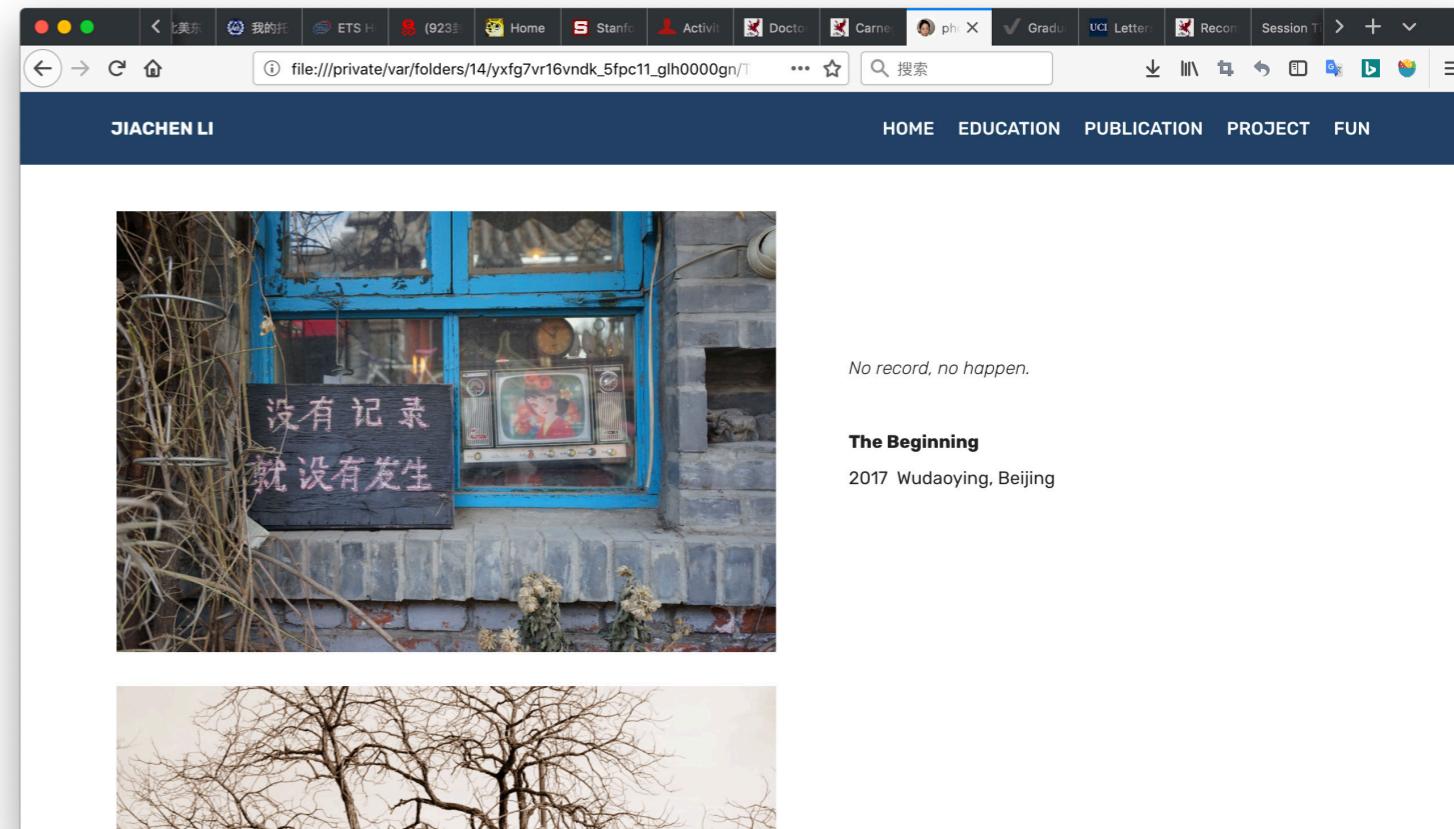
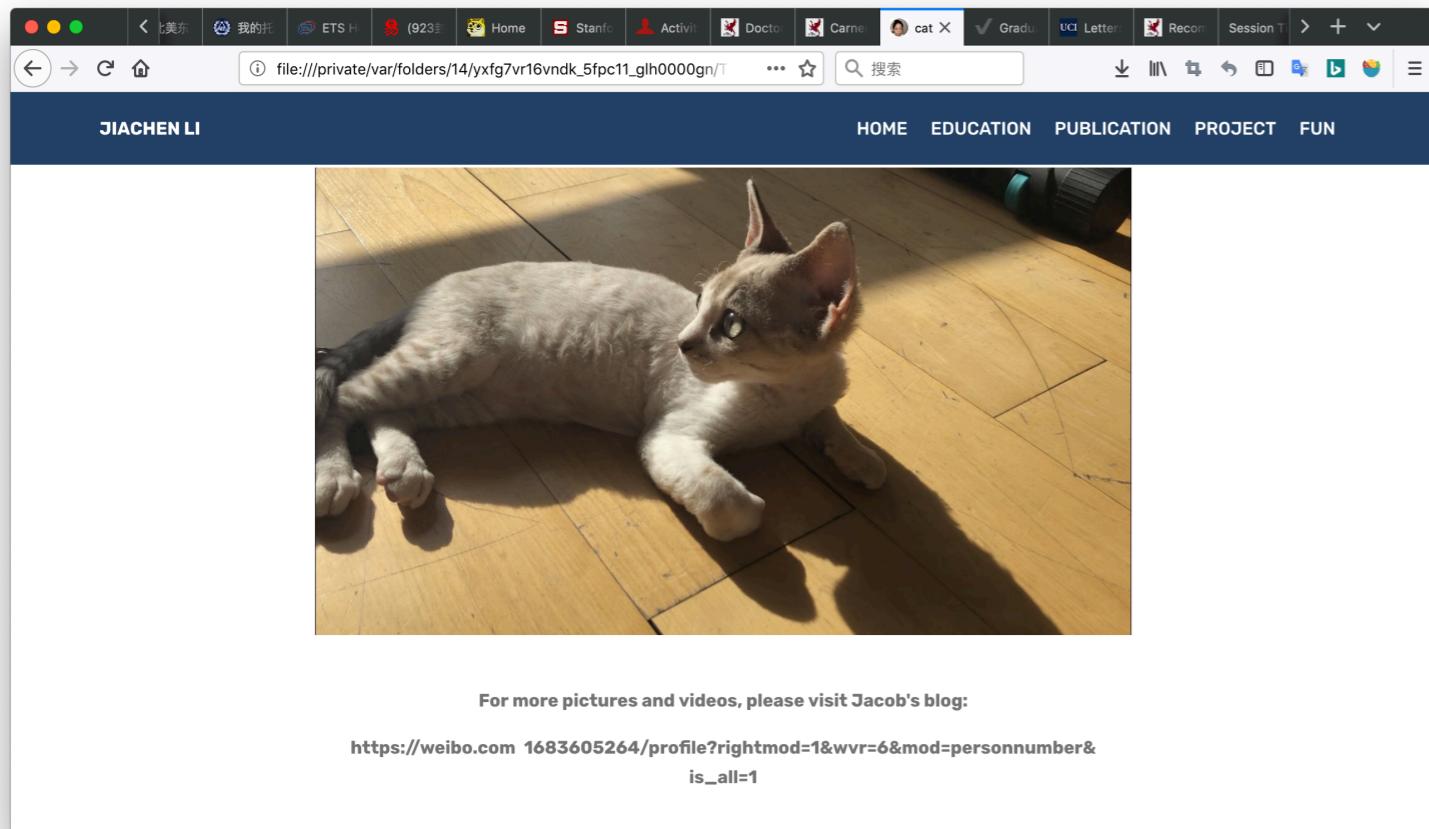
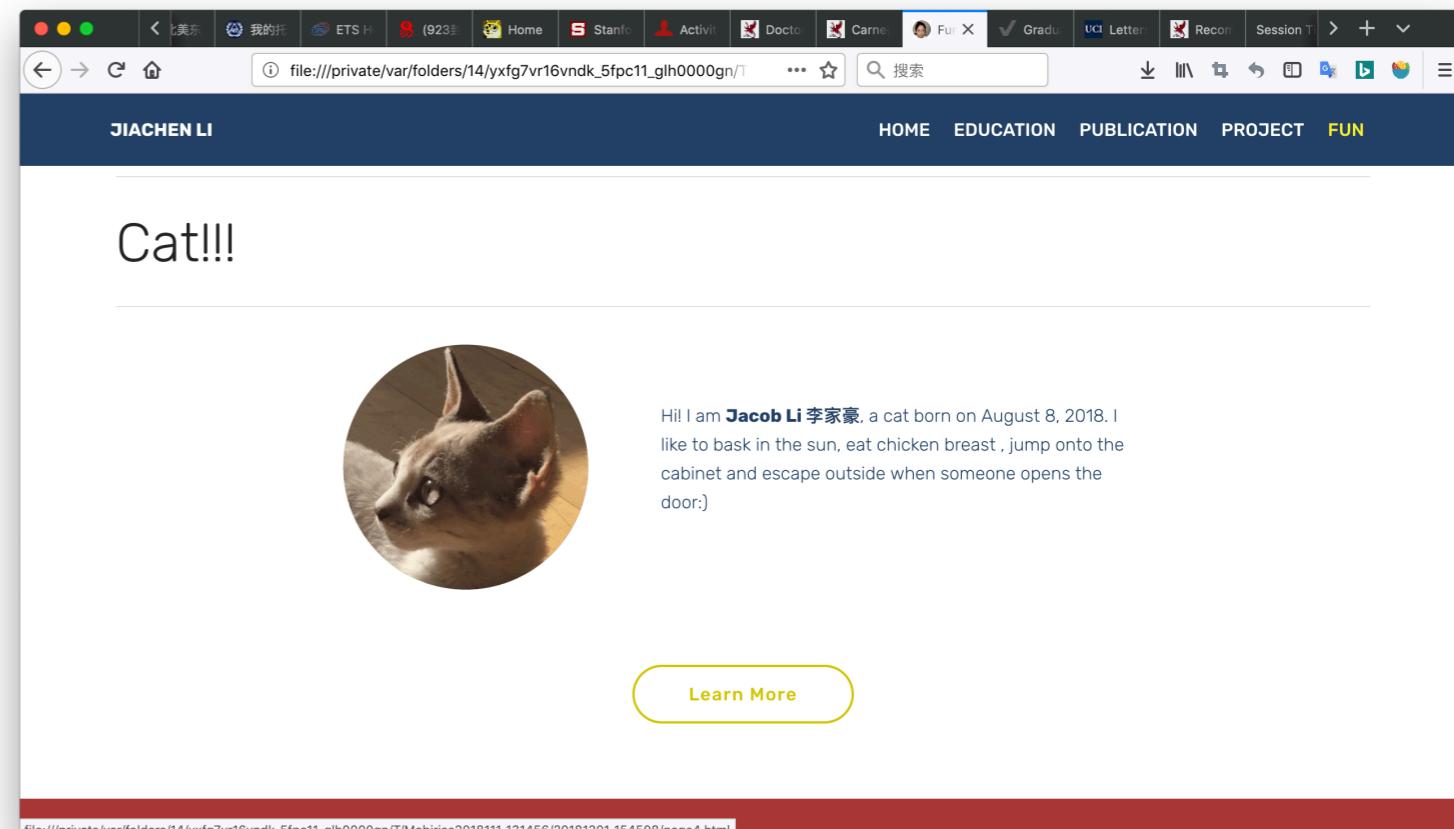
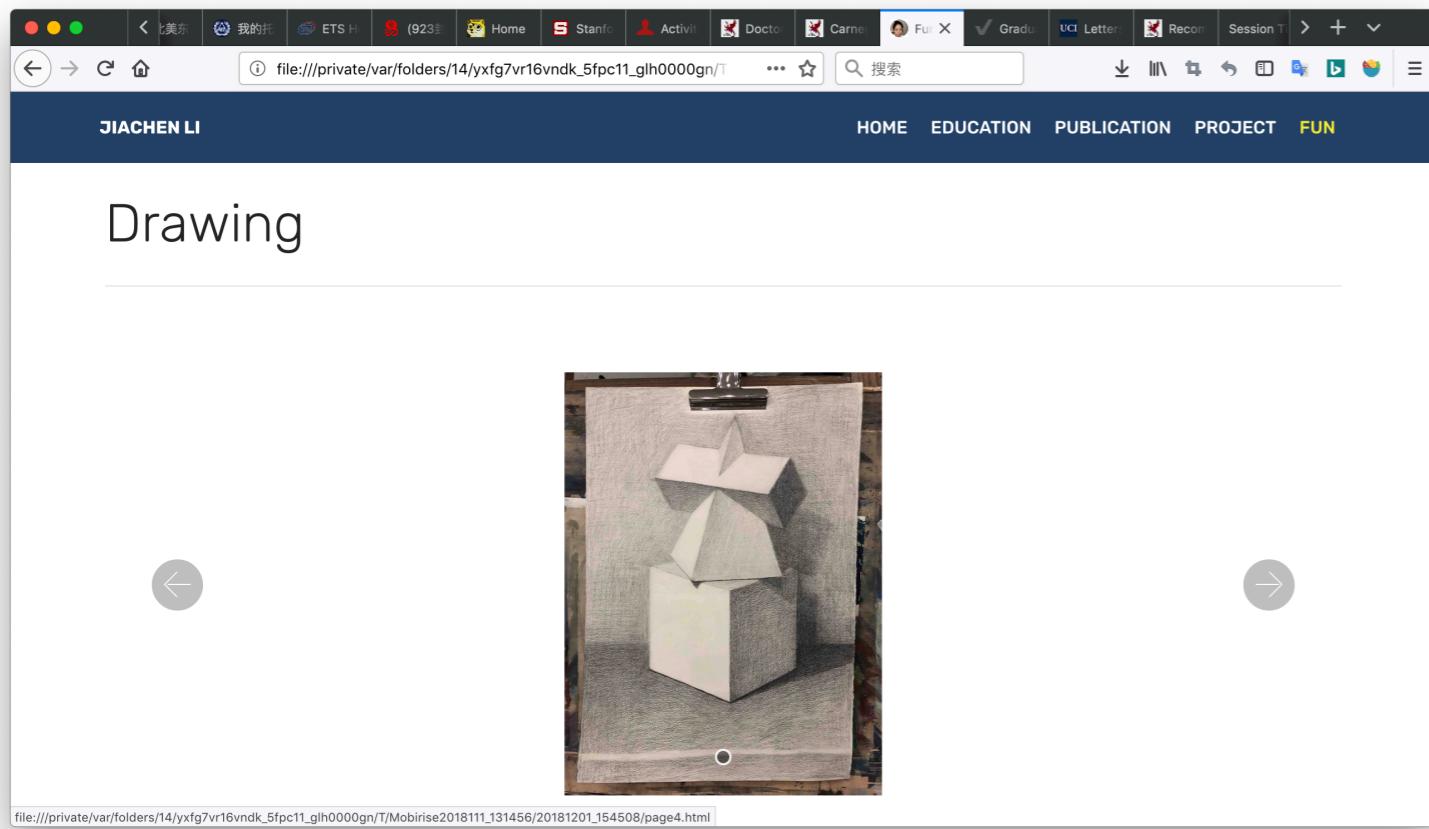
Mom is kissing the fish. Glass disappears.

Woman and fish

2017 A museum in Dubai Mall

Loving the beautiful sunshine in Berkeley. Loving you.

file:///private/var/folders/14/yxfg7vr16vndk_5fpc11_glh0000gn/T/Mobirise201811_131456/20181201_154508/page4.html





END

Thank you very much!

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