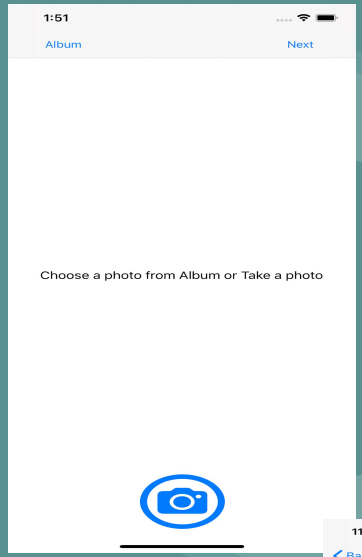
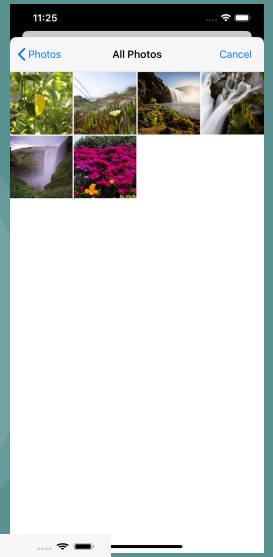
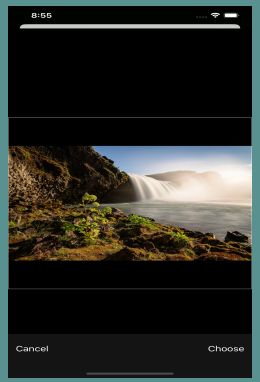
iBeauty----
An AI driven Photo-editor

Zixuan Zeng (Hins)

- User Interface Design
- Functional Implementation (traditional photo-editing functions as many as possible)
- Advanced Function (Main Focus): Deploy well-tuned Machine Learning algorithms to enhance user experience; Study user photo-editing habits; Analyze users' favorite imaging styles in different photo types such as portraits and landscapes







Possible Solutions:

1. Traditional Functions:
    - Directly implement using libraries CoreImages and UIImages in Swift (what I did): Fast but bad for flexibility
    - Integrate using MATLAB (I found out that MATLAB code could be translated into C code first then imported into xcode): Even though it is slow in terms of progress, but good for pixels analysis when combining machine learning algorithms
2. Advanced Features:
    - To learn and track user's actions: Decision Tree
    - To study imaging styles: CNN(analyze images themselves), PCA, SVM(For classification)
    - To sum up and make final decision: Decision Tree

Schedule and Milestones:

1. User Interface Implementation:
    a. 2 weeks: 8.31 - 9.11 (Firm Deadline: 9.13)
2. Traditional Functions:
    a. 4 weeks: 9.14 - 10.9 (Firm Deadline: 10.11)
3. Advanced Features:
    a. 6 weeks: 10.12 - 11.20 (Firm Deadline: 11.22)
4. Debug & Wrap-up:
    a. 2 weeks: 11.23 - 12.4