

CS342/MED253 Building for Digital Health

Derm Team

Welcome!

<https://cs342.stanford.edu>



cardinalkit.slack.com

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Project Background

- Acne affects between 40 and 50 millions of individuals in the U.S.
- No miracle solution:
 - Need to slowly find the right skincare routine (requires several iterations)
 - Personalized skincare regimen
- Hard to keep track of progression of symptoms
- Can we build a skincare diary that automatically track skin health?



Need Statement

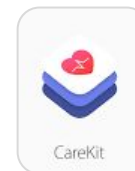
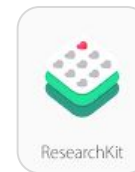
A skincare diary to track acne symptoms in **adults and teenagers** suffering from **acne** in order to help them find personalized skincare routines and **reduce the number of monthly skin flare-ups**.

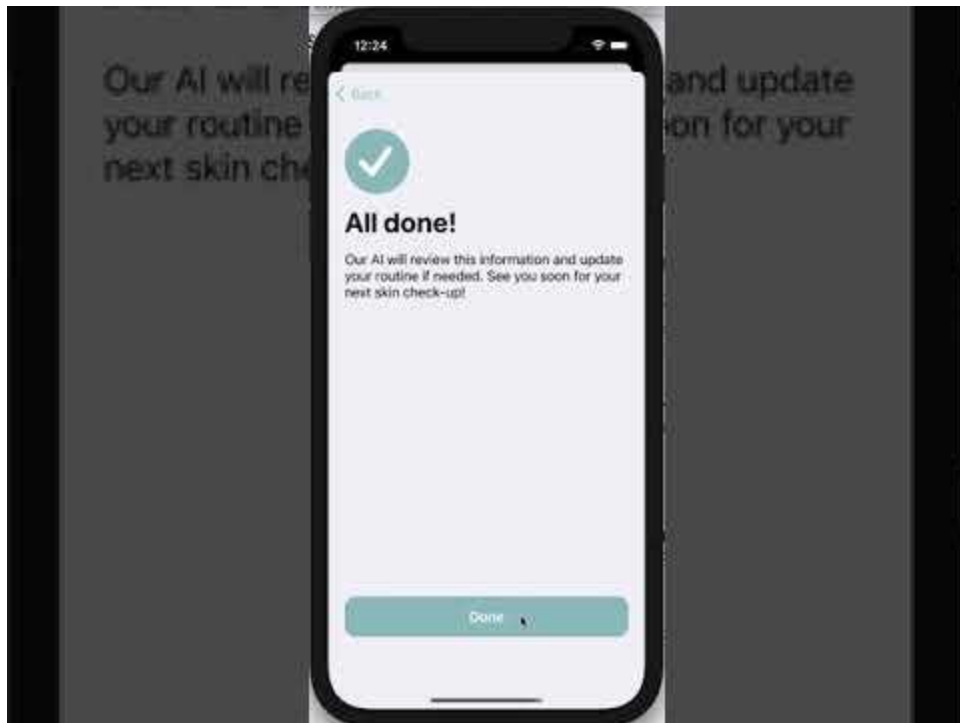
- **PROBLEM:** Acne
- **POPULATION:** Adult women suffering from acne
- **OUTCOME:** Reduce the number of monthly skin flare-ups



Architectural Diagram of Project Highlighting Components Used

- Frontend
 - CareKit
 - ResearchKit
 - CoreML
- Backend (server/database)
 - On Device
 - Firebase for login

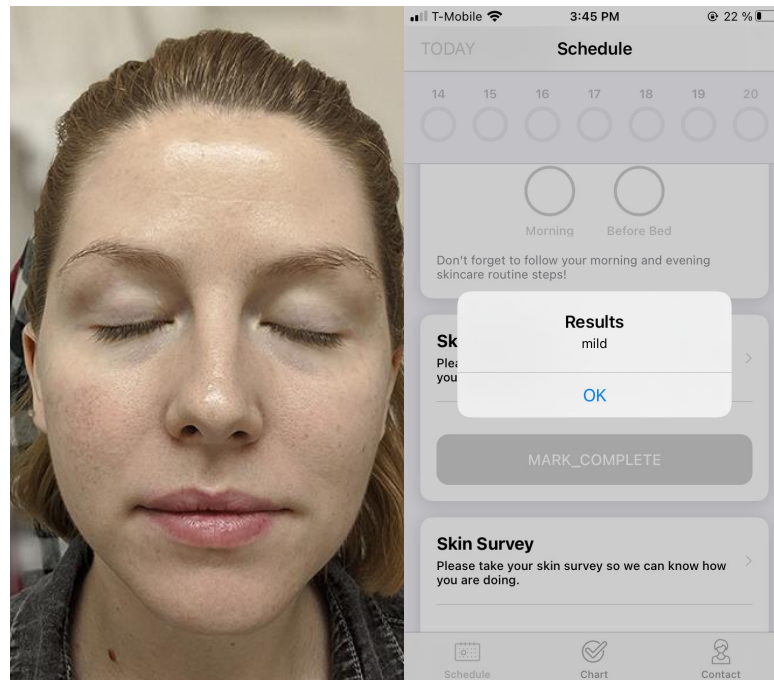
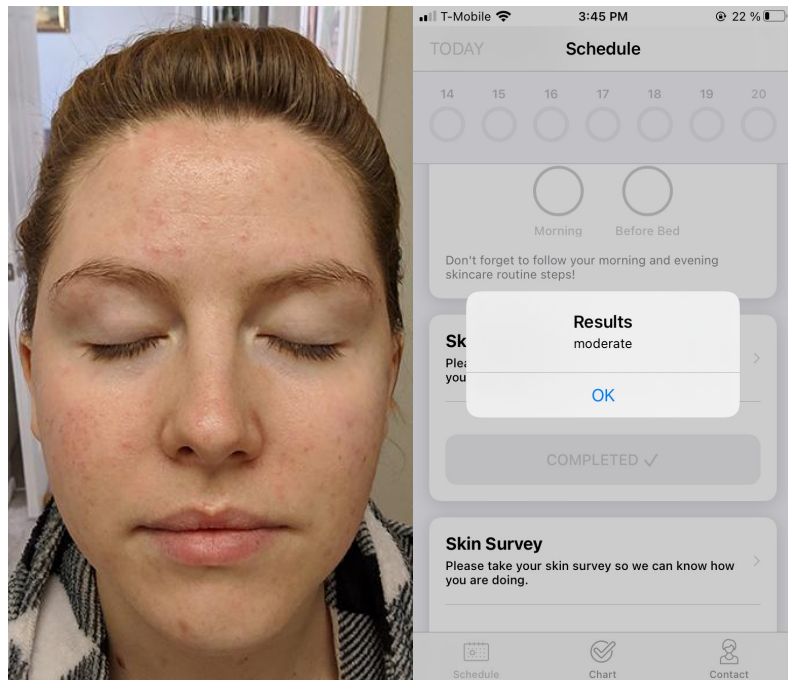




Features:

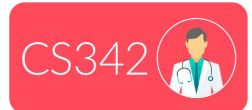
- CareKit schedule and tasks
- ResearchKit surveys x 2
- CoreML model
- ChartKit charts

ML Predictions

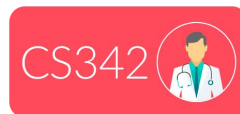


Feedback from Testers

- What worked well?
 - App design and simplicity
 - ML model
- Improvements:
 - Add functionality to enter skincare products to keep track of which ones work best
 - Add functionality to see photos over time



Questions?



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