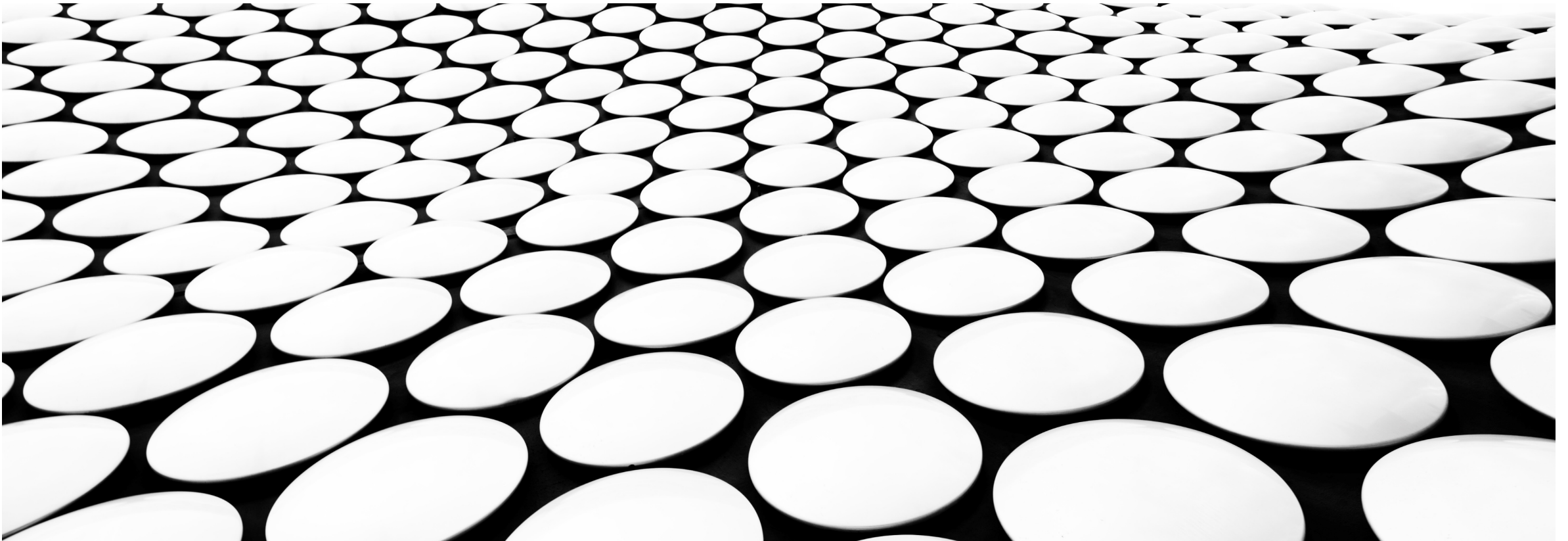# SYM✓

FALL 2020 CAPSTONE PROJECT | PROFESSOR HENRY WONG

ALAN SINGLETON, BRIANA FIGUEROA, JASMINE WASHINGTON, MORGAN FRANKLIN, SAYEMA ISLAM, SWAPNIL KADEKAR

AGENDA

Project Description

Market Research

Personas

Schedule

Retrospective

PROJECT DESCRIPTION

PROJECT DESCRIPTION

1. SymCheck is an open web application that allows users to upload images of concerning conditions and/or written symptoms in order to receive a cursory diagnosis.

    1. If it's a severe condition/illness, the application will tell the user to seek medical attention and assist him or her in finding nearby medical facilities via a location prompt.

2. This application is primarily for users who want to self-diagnose themselves for any reason.

3. This project will be based on the use of machine learning algorithms to make accurate predictions, and will utilize languages such as Python, HTML, CSS,

MARKET ANALYSIS

MARKET ANALYSIS

App Name	Platform	Upload Images	Other functionalities
SymCheck	Web Application	Yes	Show nearby hospitals if illness is severe
AskMD (Sharecare)	Mobile and Web Application	No	Microphone voice feature for ease of use
Mayo Clinic	Web Application	No	Sidebar when to seek medical care
Symptomate	Mobile and Web Application	No	Graphical representation of affected area

PERSONAS

WORKING ADULT

COLLEGE STUDENT

NURSE
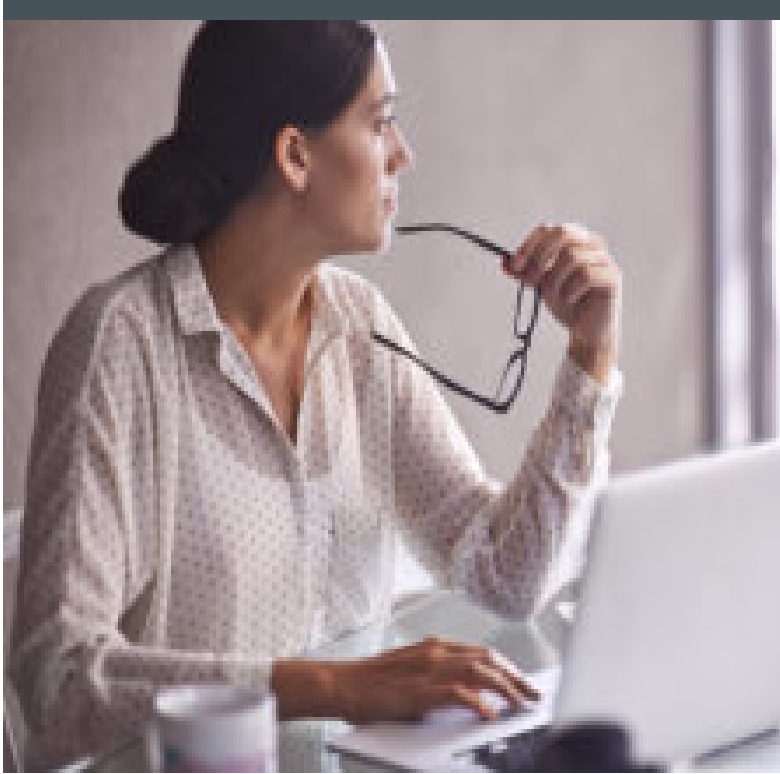
Details

Cindy is a 32-year old single mother with 2 boys: Adrian(4 years old) and Simon(6 years old). She also has a full-time job as a business analyst, working 80 hours a week. Simon has a rash starting on his chest. Cindy called the family doctor about the rash, but they are not able to diagnose him without a physical visit.

Goals

Cindy would appreciate if there was an application she could use to diagnose her son's symptoms. This would allow the doctor to verify the illness in confidence. The doctor would then be able to provide a treatment plan and she saves time by avoiding a trip to a healthcare facility.

PERSONA #1: WORKING ADULT
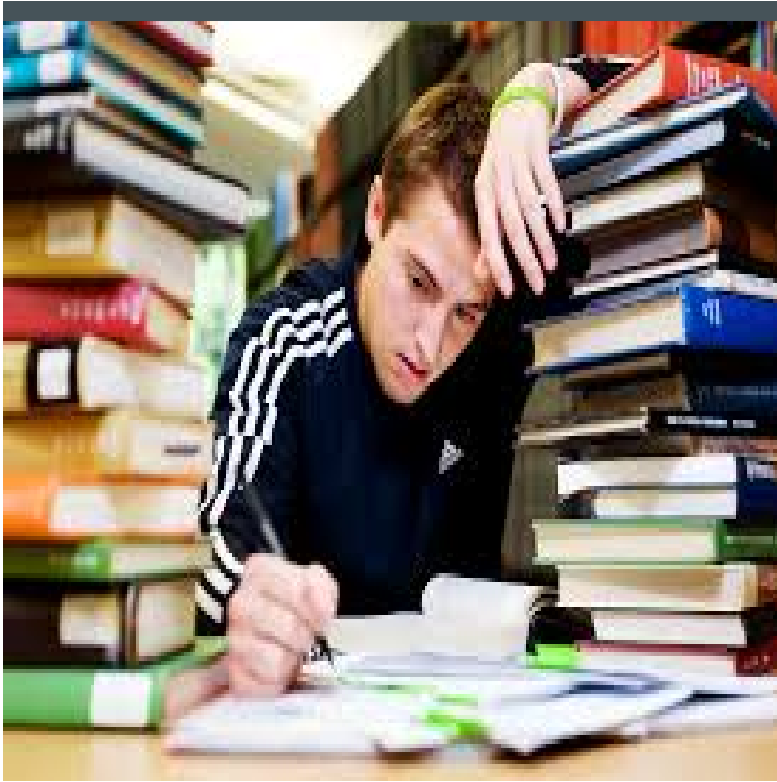
Details

Ryan is a junior at Pace University. Not only is he swarmed with assignments, but he has also just started to notice strange skin lesions on his arm. Although he wants to get his skin checked, he just doesn't have time to waste in his schedule to check-in to a doctor's office or urgent care facility if it is not necessary.

Goals

Ryan needs a cursory method of diagnosis for his abnormality, *without* having to pay a physical visit to some medical facility.

Our SymCheck application can solve this dilemma, and if the application identifies his lesions as to serious or even life threatening, it can recommend him to visiting a doctor or the nearest hospital, in which case Ryan will *know* that a visit to a doctor becomes a priority

PERSONA # 2: COLLEGE STUDENT
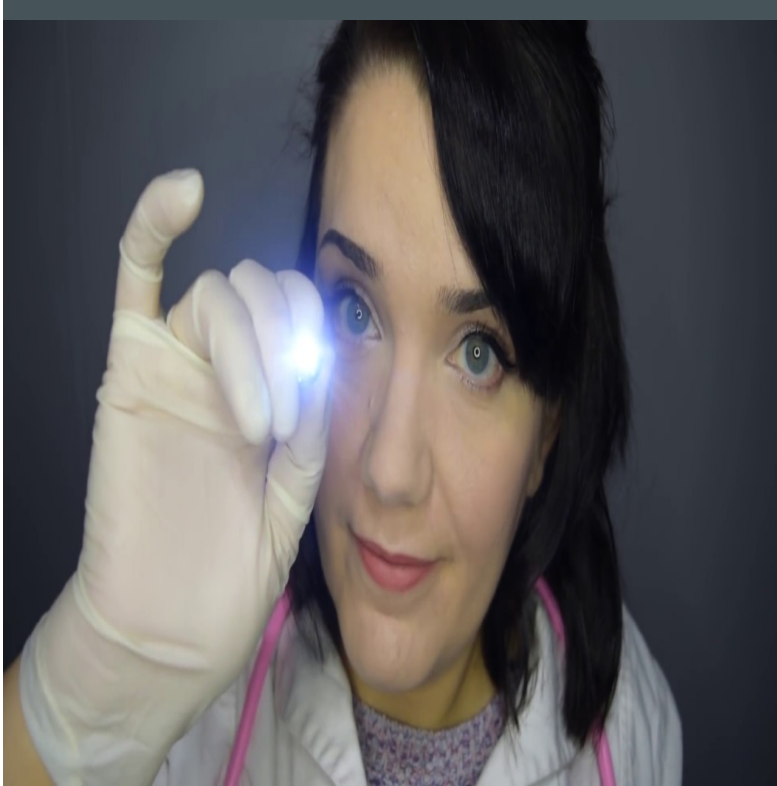
Details

Lisa has 15 years of experience as a Nurse in Urgent Care facilities. Now during COVID-19, most of the patients complain to her about the waiting period to see the doctor. To help minimize the number of patients in the office Lisa seeks an application to help her patients determine if their skin issues need seeking medical attention immediately.

Goals

Lisa wants to refer her patients to a reliable source for skin illnesses that can be treated at home. The SymCheck application would offer guidance to determine what the skin illness may be and give them advice for a home remedy. It would also help stop the spread of COVID-19 by reducing the traffic in Urgent Care facilities. Lisa would use SymCheck to show her patients how reliable it is in diagnosing skin illnesses.

PERSONA # 3: NURSE

PROJECT TIMELINE

HIDDEN AGILITY'S SCHEDULE

Sprint 1 08/24 - 09/21

Name	Status	Priority	Estimation (days)
Create significant business application	Done	High	10
Set up development tools (GitHub and Jira)	Done	Medium	5
Establish team roles	Done	Medium	2
Establish Weekly meetings	Done	Medium	5
Work on Deliverable 1	Working on it	High	7
		Total	29

Sprint 2 09/22 - 10/5

Name	Status	Priority	Estimation (days)
Create Acceptance Criteria	Not started yet	Medium	1
Create Test Cases	Not started yet	Medium	1
Create mock-up web page designs	Not started yet	High	3
Create User Stories	Not started yet	High	1
Research Django framework	Working on it	High	3
Research Chicken pox symptoms	Working on it	High	2
Gather images of chicken pox	Ongoing	High	3
Work on Deliverable 2	Not started yet	Medium	7
		Total	21

HIDDEN AGILITY'S SCHEDULE

Sprint 3 10/06 - 10/26

Name	Status	Priority	Estimation (days)
Draft technical paper	Not started yet	Medium	8
Train ML Algorithm	Not started yet	Critical	3
Test ML Algorithm	Not started yet	Critical	3
Develop web pages	Not started yet	High	6
Work on Deliverable 3	Not started yet	Medium	7
		Total	**27**

Sprint 4 10/27 - 11/23

Name	Status	Priority	Estimation (days)
Finish development of web pages	Not started yet	High	3
Finish project demo	Not started yet	Critical	5
Finish technical paper	Not started yet	Critical	5
Work on Deliverable 4	Not started yet	Medium	7
		Total	**20**

RETROSPECTIVES

TOP VOTED RESULTS

What went well
- Keeping a repository of useful material

What needs improvement
- Zoom meeting purpose
- Note taking during meetings

Next Steps
- Define meeting agendas each week

CONCLUSION

GitHub Link