



**THE IMAGE-BASED SELF DIAGNOSIS
WEB APPLICATION**

USER MANUAL

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Getting Started

Welcome to the official user guide for SymCheck, an image-based self-diagnosis web application!

Before we begin, please ensure that you have the correct environment set up on your machine for running the SymCheck application via localhost, or have navigated to our cloud-hosted instance at: [insert cloud-hosted application URL here], instructions for both of which can be found in the *SymCheck Installation Manual*.

After setting up the proper environment on your machine, follow this guide to receive your own automatically generated diagnosis information.

***Please note that all images shown in this manual are for SAMPLE PURPOSES ONLY. What you see on your own machine may look slightly different.

Navigating to the Application

SymCheck works on various browsers hosted on your local computer, including Google Chrome, Mozilla Firefox, Internet Explorer, and Microsoft Edge. (Some bugs have been found in the use of Safari, thus our team would recommend using an alternate browser until this issue can be resolved.)

To run the application via localhost, start by running your Python virtual environment as set up via the *SymCheck Installation Manual* on your computer. Then navigate to the folder containing all the files for the SymCheck application, and run the Django server via the manage.py file as demonstrated in the installation manual and below:

```
(pyenv) → Symcheck
(pyenv) → Symcheck ls
SymCheck  db.sqlite3  manage.py  models  venv
          pycache    djangoProject1 media    templates
(pyenv) → Symcheck python3 manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

2020-11-15 21:10:17.939326: I tensorflow/core/platform/cpu_feature_guard.cc:142] This TensorFlow binary is optimized with oneAPI
Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX2 FMA
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
2020-11-15 21:10:17.964248: I tensorflow/compiler/xla/service/service.cc:168] XLA service 0x7f94c0f0c270 initialized for platform
m Host (this does not guarantee that XLA will be used). Devices:
2020-11-15 21:10:17.964265: I tensorflow/compiler/xla/service/service.cc:176] StreamExecutor device (0): Host, Default Version
System check identified no issues (0 silenced).
November 15, 2020 - 21:10:18
Django version 3.1.3, using settings 'djangoProject1.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C. █
```


With the server running successfully, open up your browser of choice and go to the localhost site outlined in your command line, i.e. <http://127.0.0.1:8000/> above, or simply <http://localhost:8000>.

Alternatively, you can simply navigate to: [insert cloud-hosted application URL here].

In either case, you should then see the following welcome page of the SymCheck application:

SymCheck HomePage

localhost:8000




[Home](#)
[Upload](#)
[FAQ](#)
[About Us](#)

Illness Image Recognition at its Finest

Welcome to SymCheck, an illness diagnosis app that can help you identify Chickenpox or Pink eye with an image of the effected area! Our algorithm is 78% accurate and will be able to give advice on how best to handle your illness!

[CHECK OUT A QUICK DEMO](#)
[UPLOAD IMAGES](#)



SYMCHECK

[Home](#)
[Upload](#)
[FAQ](#)
[About Us](#)

RESOURCES

[Django](#)
[Tensorflow](#)
[Keras](#)
[AWS](#)
[Google Map API](#)


SUPPORT

[FAQ](#)

Contact Us



Email: symcheckapp@gmail.com
Facebook: [SYMCheck](#)
Instagram: [symcheck8080](#)
Twitter: [twitter.com/CheckSym](#)

*This application is not run nor affiliated with any hospitals, urgent care, or any medical professional for official consultation. contact your local physician or hospital.



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Terms of Service Privacy Policy

Hello! How can I help you?

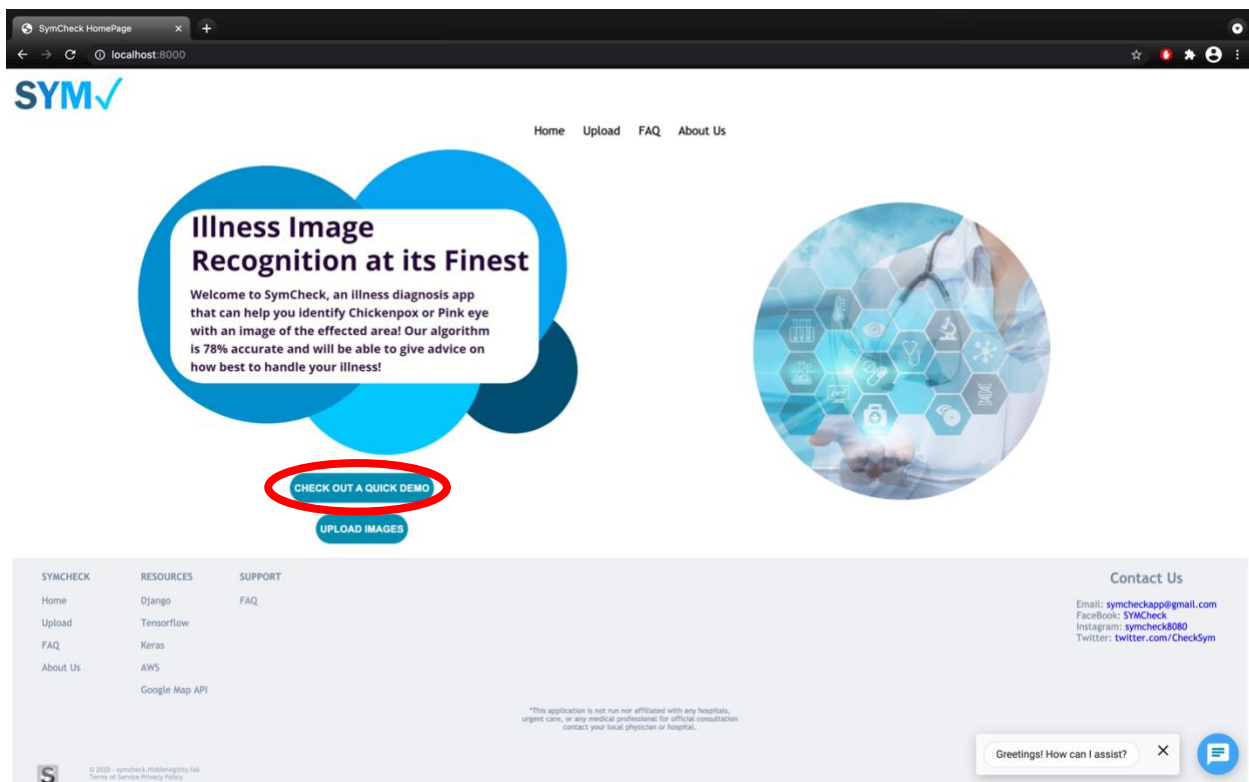



6

Homepage

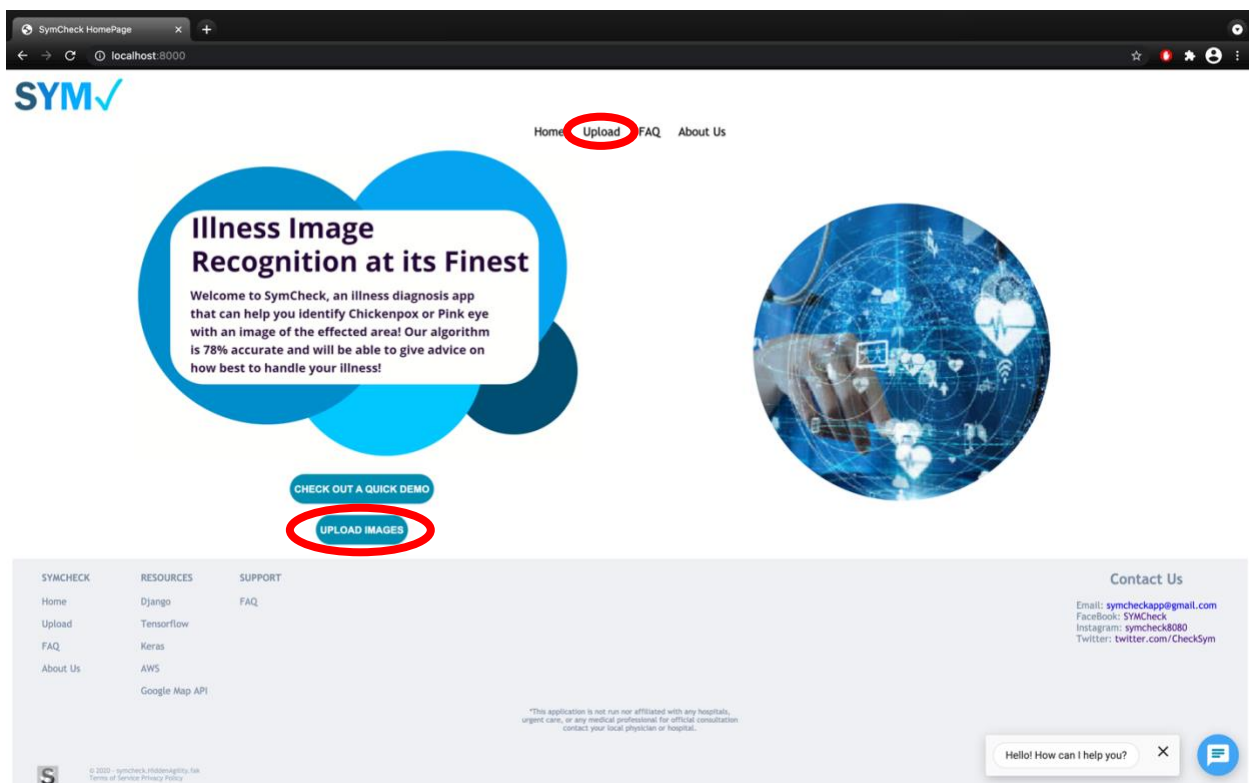
Watch a site demo

For a quick overview of the main functionalities of the SymCheck website and all its features, as well as a walkthrough of navigating the website, click the “Check Out a Demo” button to watch a video led by one of the members of the SymCheck team:

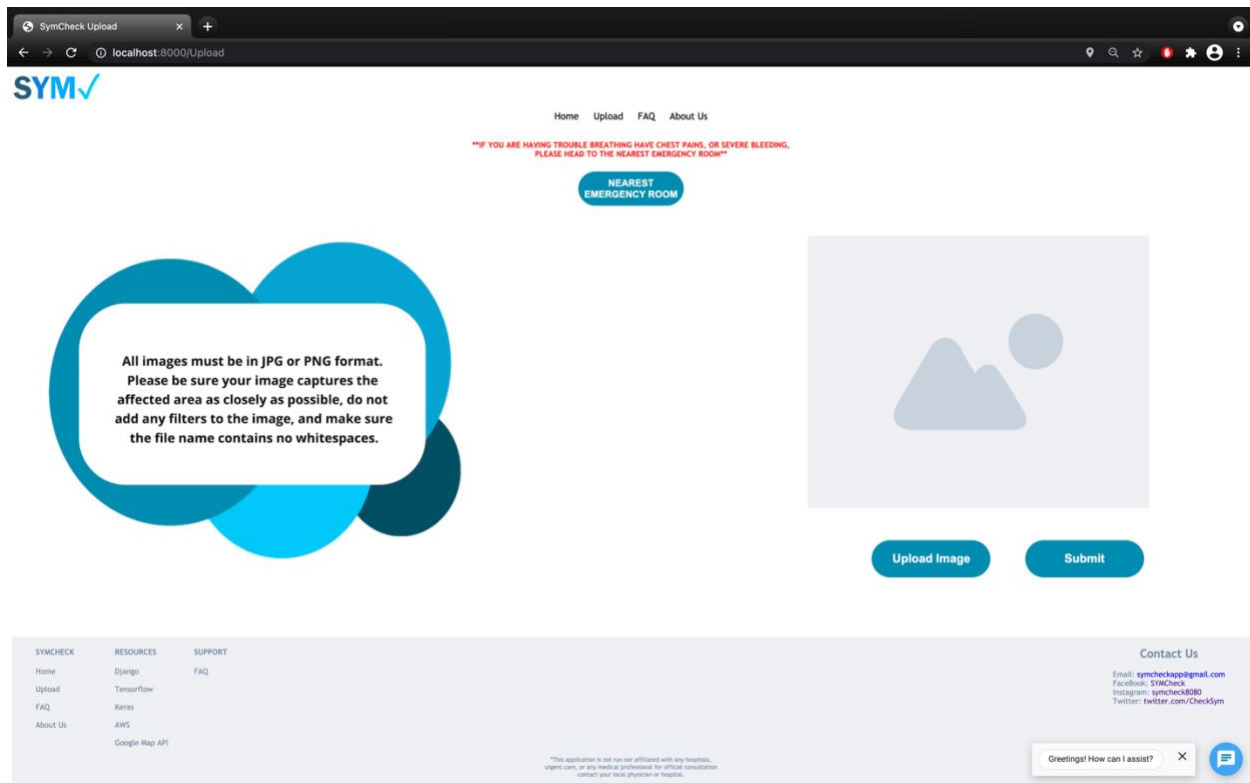


Beginning a Diagnosis

To begin a diagnosis, simply click on the “Upload Images” button, or on the “Upload” tab of the top navigation bar to navigate to the application’s main image upload page as shown below:



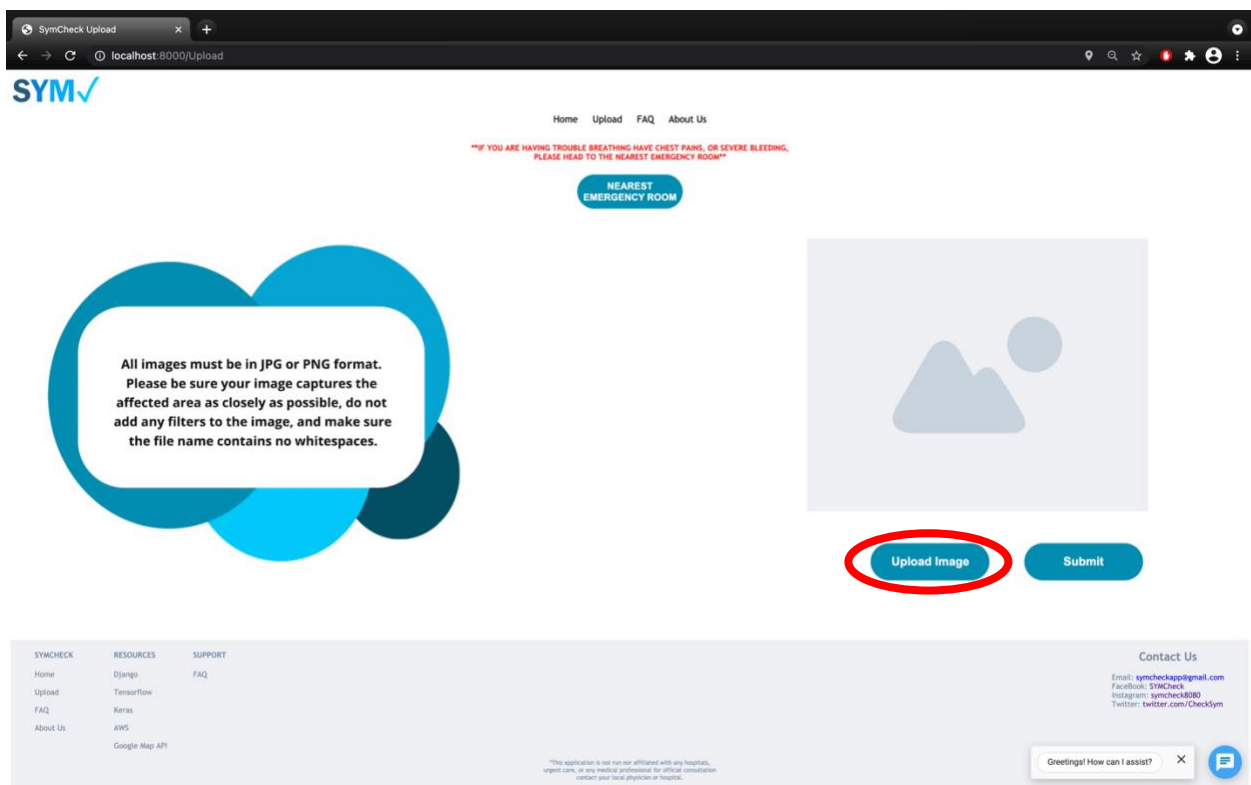
Clicking said button or tab should then take you to the image upload page as shown on the following page:



Great! Now we're ready to upload an image of our illness!

Upload Page

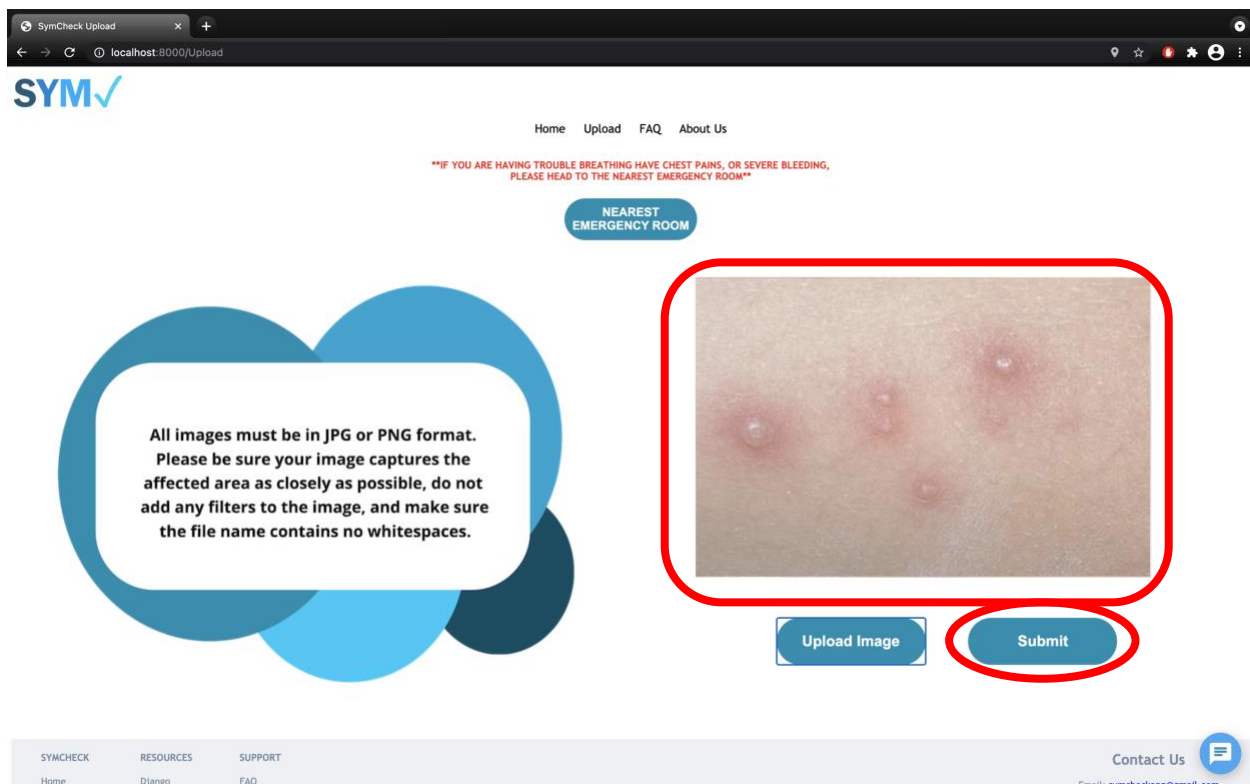
We are now at the main image upload page of the SymCheck application. In order to upload an image of an illness, simply click on the “Upload Image” button as shown below:



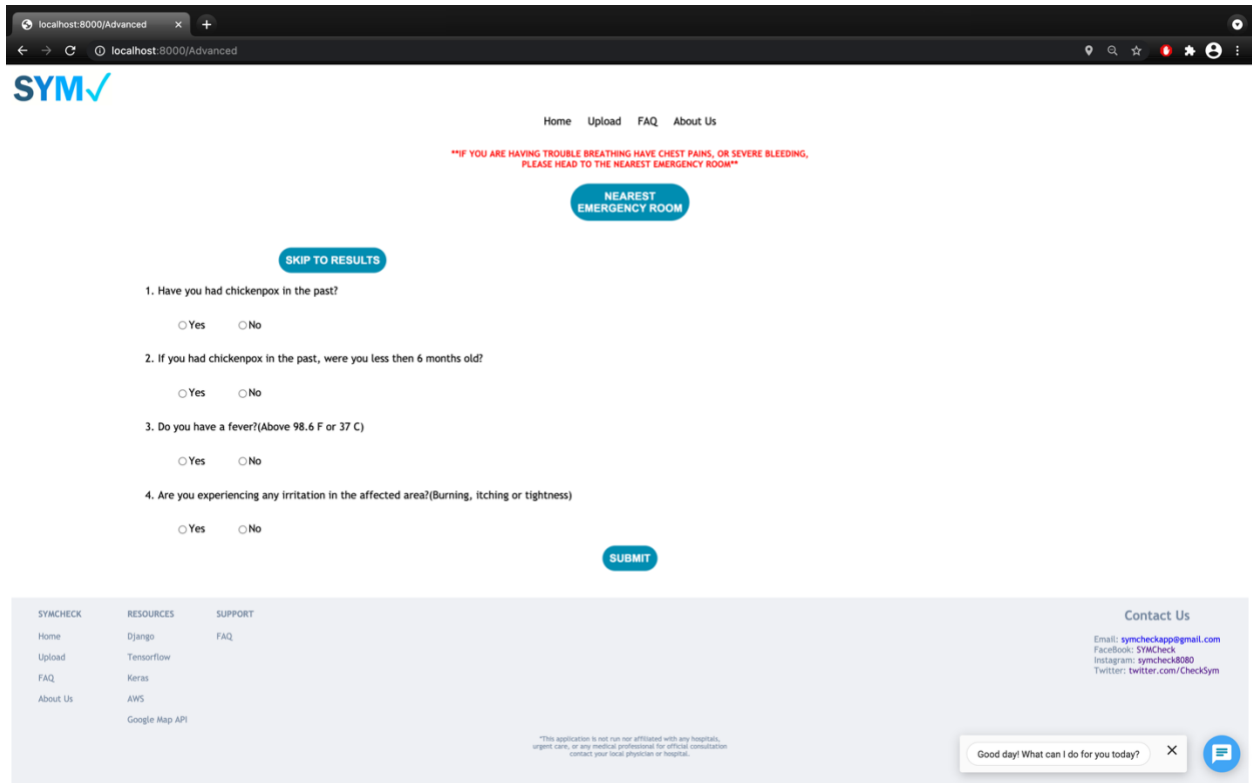
This will open your computer’s local file space from which you will be able to choose your desired image file. **Acceptable formats include .png and .jpg/.jpeg**, as outlined in the instructions to the left of the upload field.

Once you have chosen an acceptable image, a preview of your image should be displayed above the “Upload Image” and

“Submit” buttons, indicating that your image has been uploaded successfully. (Please note that the physical size of the preview may vary based on how large or small the image you have uploaded is.) Now click “Submit” to send your image to our backend machine-learning-based algorithm for classification while you are automatically navigated to the next page.



Clicking said “Submit” button should take you to the Advanced Prediction page shown on the following page:



The screenshot shows a web browser window with the URL `localhost:8000/Advanced`. The SYM logo is in the top left. A navigation bar contains links for Home, Upload, FAQ, and About Us. A red warning message states: *****IF YOU ARE HAVING TROUBLE BREATHING HAVE CHEST PAIN, OR SEVERE BLEEDING, PLEASE HEAD TO THE NEAREST EMERGENCY ROOM*****. Below this is a blue button labeled **NEAREST EMERGENCY ROOM**. A **SKIP TO RESULTS** button is also present. The form contains four questions with radio button options:

1. Have you had chickenpox in the past?
☐ Yes ☐ No
2. If you had chickenpox in the past, were you less than 6 months old?
☐ Yes ☐ No
3. Do you have a fever?(Above 98.6 F or 37 C)
☐ Yes ☐ No
4. Are you experiencing any irritation in the affected area?(Burning, itching or tightness)
☐ Yes ☐ No

A blue **SUBMIT** button is at the bottom of the form. The footer includes a table of links:

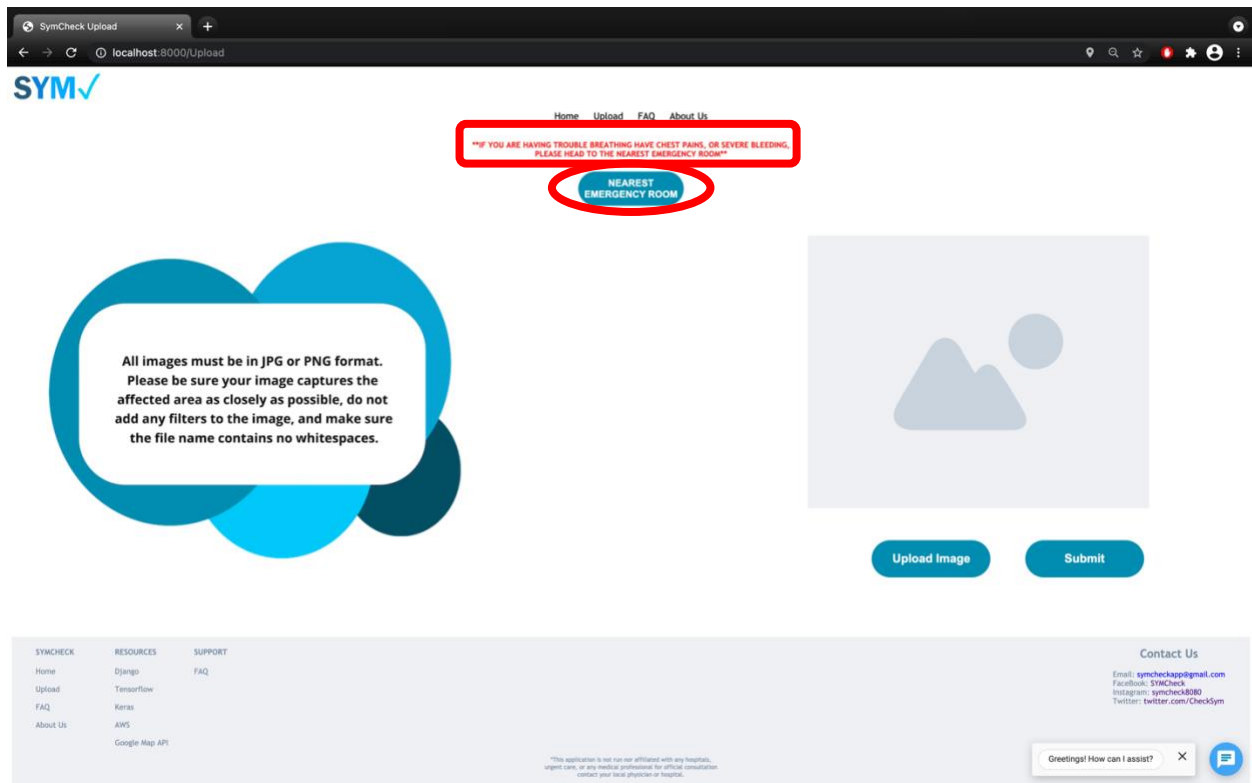
SYMCHECK	RESOURCES	SUPPORT
Home	Django	FAQ
Upload	Tensorflow	
FAQ	Keras	
About Us	AWS	
	Google Map API	

Contact Us information is provided on the right: Email: symcheckapp@gmail.com, Facebook: SYMCheck, Instagram: symcheck8080, Twitter: twitter.com/CheckSym. A disclaimer states: "This application is not run nor affiliated with any hospitals, urgent care, or any medical professional for official consultation. Contact your local physician or hospital." A chat bubble at the bottom right says "Good day! What can I do for you today?"

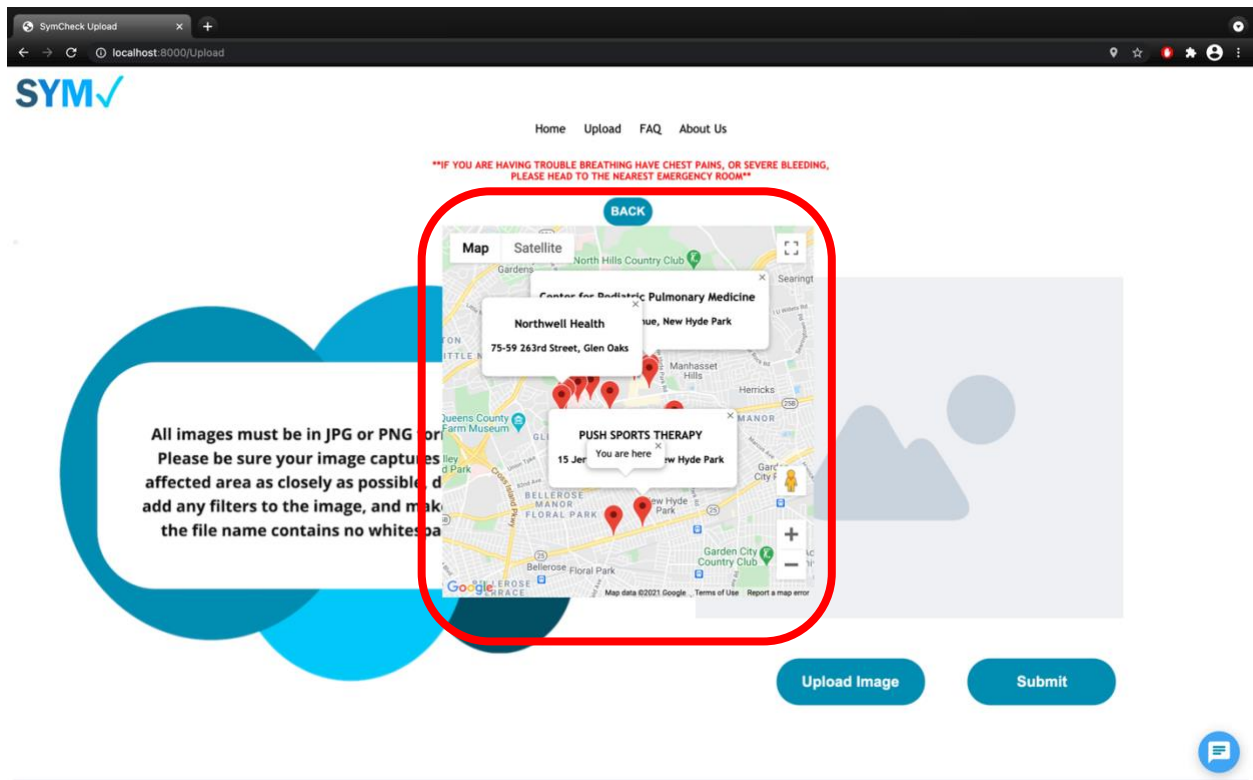
***Please note that the specific questions shown on this page will vary based on what type of illness/ailment is predicted by the backend algorithm from the image uploaded.

Nearest Emergency Room button

If at any time during this process you feel any of the symptoms outlined below, or deem your illness/ailment life threatening in any way, click on the “Nearest Emergency Room” as shown on the following page:



This will open a dynamic Google Maps window within the SymCheck application, showing you the locations of all healthcare facilities nearest you.

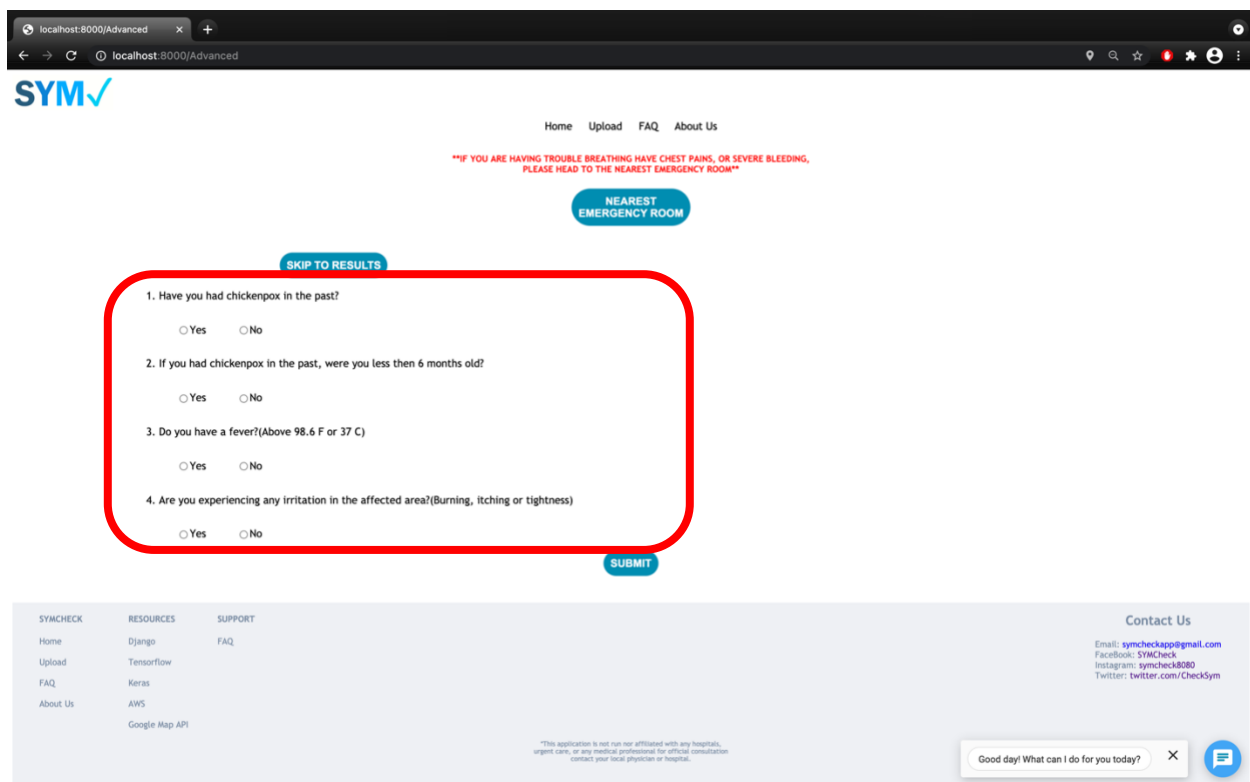


To close this map pop-up, simply press the “Back” button shown above the map itself.

Advanced Prediction Page

Completing an “Advanced” Prediction

Upon reaching the advanced prediction page, the application will pose a short series of yes or no questions for you to answer, based on a base/cursory prediction already made by the backend algorithm the SymCheck application. The answers made to the questions posed will then increase or decrease the final probability percentage, in order to provide you with a more accurate determination of whether or not you have a specific illness/ailment.



The screenshot shows a web browser at localhost:8000/Advanced. The SYM logo is in the top left. A navigation bar includes Home, Upload, FAQ, and About Us. A red warning message states: "IF YOU ARE HAVING TROUBLE BREATHING HAVE CHEST PAINS, OR SEVERE BLEEDING, PLEASE HEAD TO THE NEAREST EMERGENCY ROOM". Below this is a blue button labeled "NEAREST EMERGENCY ROOM". A red box highlights a form with four questions, each with "Yes" and "No" radio button options. A blue button labeled "SKIP TO RESULTS" is above the form, and a blue button labeled "SUBMIT" is below it. The footer contains links for SYM CHECK, RESOURCES, and SUPPORT. A "Contact Us" section lists email, Facebook, Instagram, and Twitter. A disclaimer at the bottom states: "This application is not run nor affiliated with any hospitals, urgent care, or any medical professional for official consultation contact your local physician or hospital." A chat bubble at the bottom right says "Good day! What can I do for you today?".

SYM

Home Upload FAQ About Us

IF YOU ARE HAVING TROUBLE BREATHING HAVE CHEST PAINS, OR SEVERE BLEEDING, PLEASE HEAD TO THE NEAREST EMERGENCY ROOM

NEAREST EMERGENCY ROOM

SKIP TO RESULTS

1. Have you had chickenpox in the past?
 - ☐ Yes ☐ No
2. If you had chickenpox in the past, were you less than 6 months old?
 - ☐ Yes ☐ No
3. Do you have a fever?(Above 98.6 F or 37 C)
 - ☐ Yes ☐ No
4. Are you experiencing any irritation in the affected area?(Burning, itching or tightness)
 - ☐ Yes ☐ No

SUBMIT

SYM CHECK RESOURCES SUPPORT

Home Django FAQ

Upload TensorFlow

FAQ Keras

About Us AWS

Google Map API

Contact Us

Email: symcheckapp@gmail.com

Facebook: SYMcheck

Instagram: symcheck8080

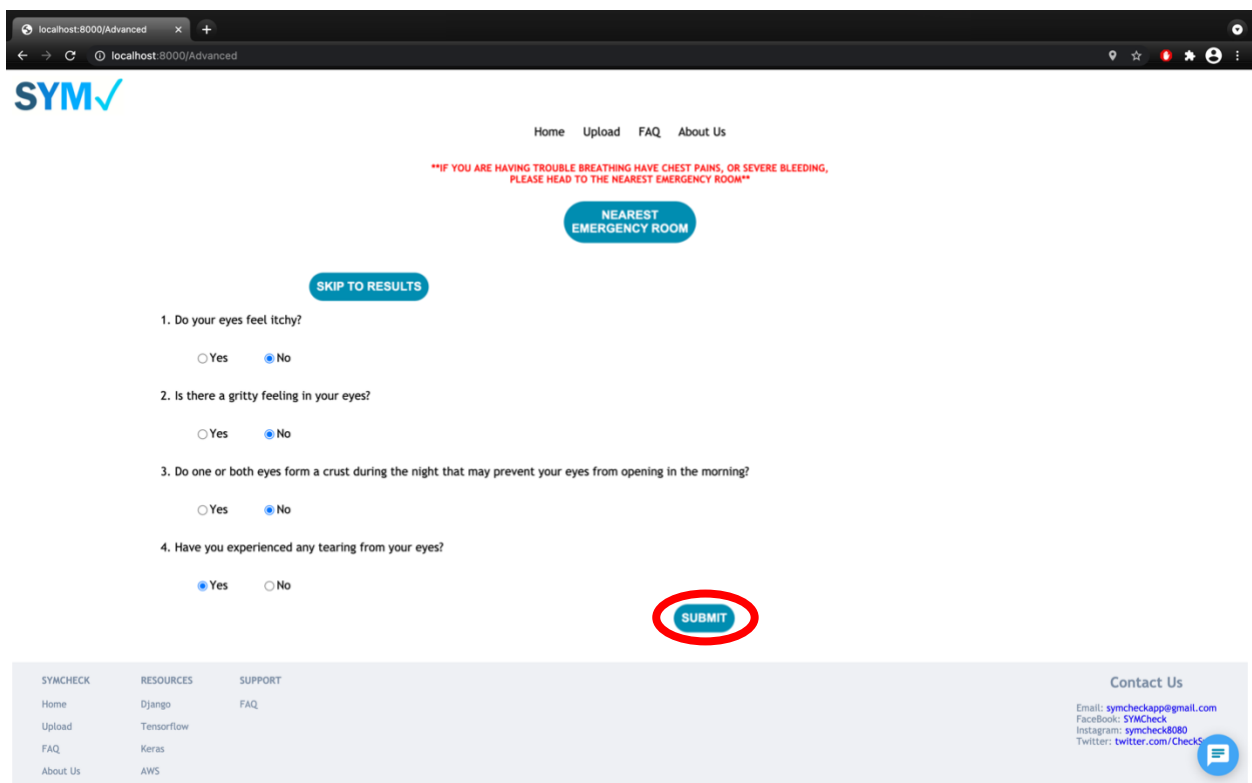
Twitter: twitter.com/CheckSym

*This application is not run nor affiliated with any hospitals, urgent care, or any medical professional for official consultation contact your local physician or hospital.

Good day! What can I do for you today?

All questions must be completed to obtain an advanced, more accurate prediction percentage.

After answering yes or no to all the questions posed, click the “Submit” button to view your final results! (You MUST click “Submit” to send your answers to the backend algorithm of SymCheck and obtain your adjusted percentage prediction. Be sure not to click “Skip to Results” after filling out the questions as this will take you to the Results page and display your original, unadjusted prediction percentage without accounting for any of your answers.)



The screenshot shows a web browser window with the URL 'localhost:8000/Advanced'. The SYMCheck logo is in the top left. Navigation links 'Home', 'Upload', 'FAQ', and 'About Us' are in the top right. A red warning message reads: '**IF YOU ARE HAVING TROUBLE BREATHING HAVE CHEST PAINS, OR SEVERE BLEEDING, PLEASE HEAD TO THE NEAREST EMERGENCY ROOM**'. Below this is a blue button labeled 'NEAREST EMERGENCY ROOM'. A 'SKIP TO RESULTS' button is also present. The questionnaire consists of four questions with radio button options:

1. Do your eyes feel itchy?
☐ Yes ☒ No
2. Is there a gritty feeling in your eyes?
☐ Yes ☒ No
3. Do one or both eyes form a crust during the night that may prevent your eyes from opening in the morning?
☐ Yes ☒ No
4. Have you experienced any tearing from your eyes?
☒ Yes ☐ No

A red circle highlights the 'SUBMIT' button at the bottom right of the questionnaire. The footer contains a table of links:

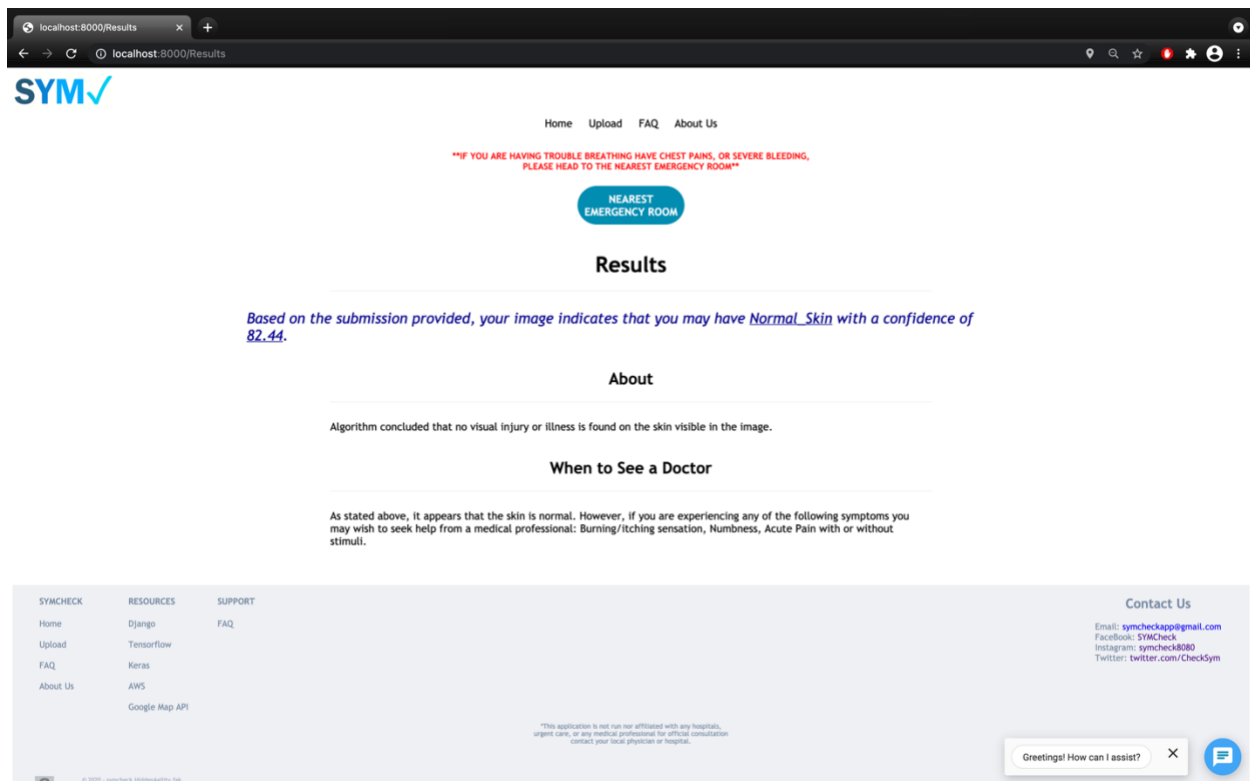
SYM-CHECK	RESOURCES	SUPPORT
Home	Django	FAQ
Upload	Tensorflow	
FAQ	Keras	
About Us	AWS	

On the right side of the footer, there is a 'Contact Us' section with the following information:

- Email: symcheckapp@gmail.com
- Facebook: SYMCheck
- Instagram: symcheck8080
- Twitter: twitter.com/CheckS

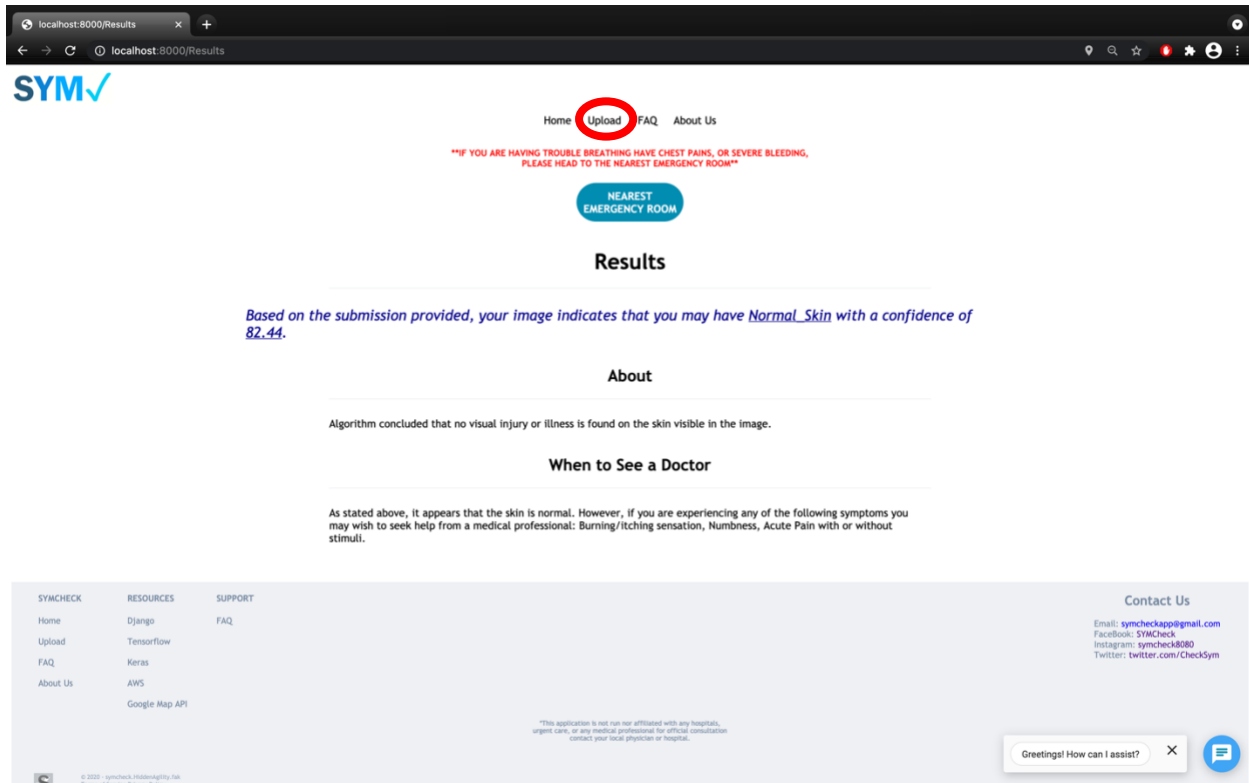
A blue chat icon is located in the bottom right corner of the footer.

After completing all the advanced prediction questions and submitting your answers, you will be automatically taken to your final Results page, similar to that shown below:



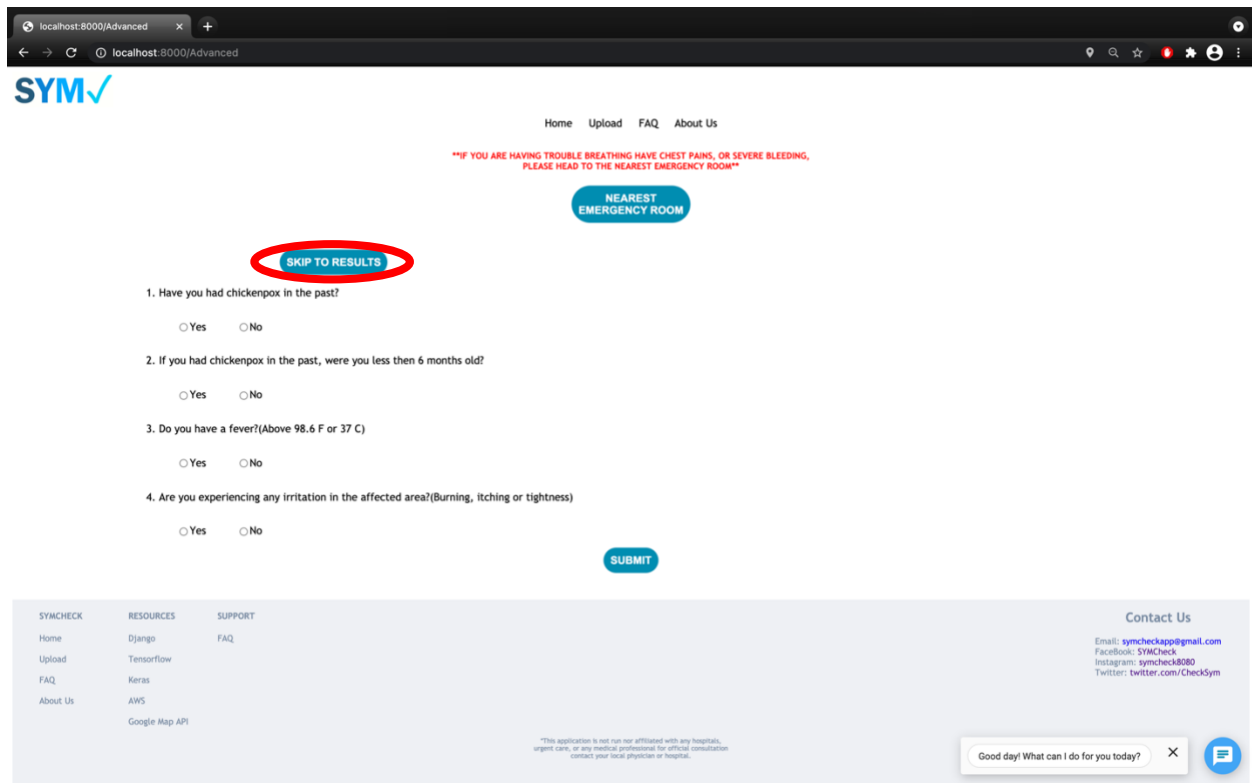
Congratulations on receiving your completed illness prediction from SymCheck!

Should you wish to start a new diagnosis, or at any time wish to restart your current diagnosis, simply click the “Upload” tab found in the top navigation bar as shown on the following page to return to the image upload and upload a new image. (Conversely, you can also return to the homepage in the same way and click “Upload Images” from there.)



Skiping the “Advanced” Prediction

Because SymCheck is all about saving its users time, and providing the highest possible degree of convenience, you also have the option to skip the task of answering the questions posed on the Advanced Prediction page by clicking the “Skip to Results” button as shown below. The questions themselves can only provide a *more* accurate determination of the final illness prediction, so, not to worry! A decision to skip said questions will *not* affect the cursory prediction made based solely on the image uploaded in any way.



The screenshot shows a web browser window with the URL `localhost:8000/Advanced`. The SYM logo is in the top left. A navigation bar contains links for Home, Upload, FAQ, and About Us. A red warning message states: ****IF YOU ARE HAVING TROUBLE BREATHING HAVE CHEST PAIN, OR SEVERE BLEEDING, PLEASE HEAD TO THE NEAREST EMERGENCY ROOM****. Below this is a blue button labeled "NEAREST EMERGENCY ROOM". A red circle highlights a blue button labeled "SKIP TO RESULTS". The questionnaire consists of four questions, each with "Yes" and "No" radio button options:

1. Have you had chickenpox in the past?
☐ Yes ☐ No
2. If you had chickenpox in the past, were you less than 6 months old?
☐ Yes ☐ No
3. Do you have a fever?(Above 98.6 F or 37 C)
☐ Yes ☐ No
4. Are you experiencing any irritation in the affected area?(Burning, itching or tightness)
☐ Yes ☐ No

A blue "SUBMIT" button is located below the questions. The footer contains a table of links:

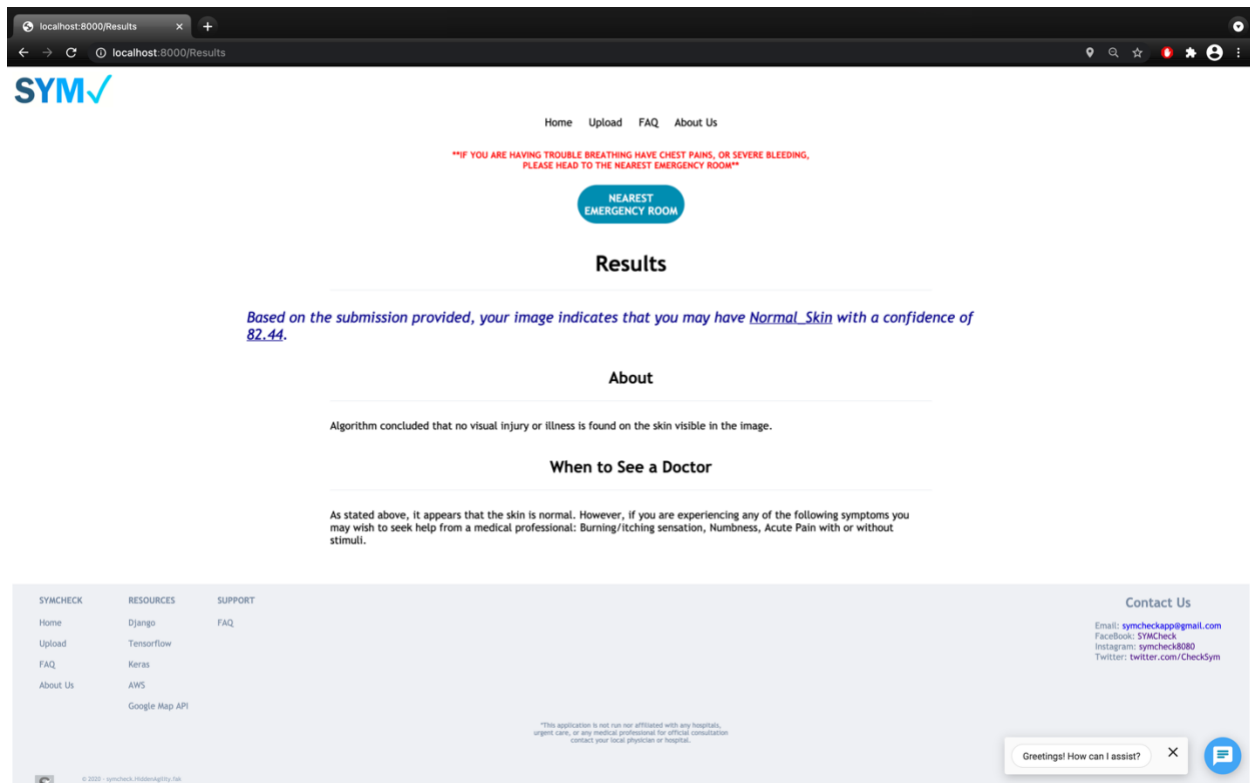
SYMCHECK	RESOURCES	SUPPORT
Home	Django	FAQ
Upload	Tensorflow	
FAQ	Keras	
About Us	AWS	
	Google Map API	

On the right side of the footer, there is a "Contact Us" section with the following information:

- Email: symcheckapp@gmail.com
- Facebook: [SYMCheck](#)
- Instagram: [symcheck8080](#)
- Twitter: [twitter.com/CheckSym](#)

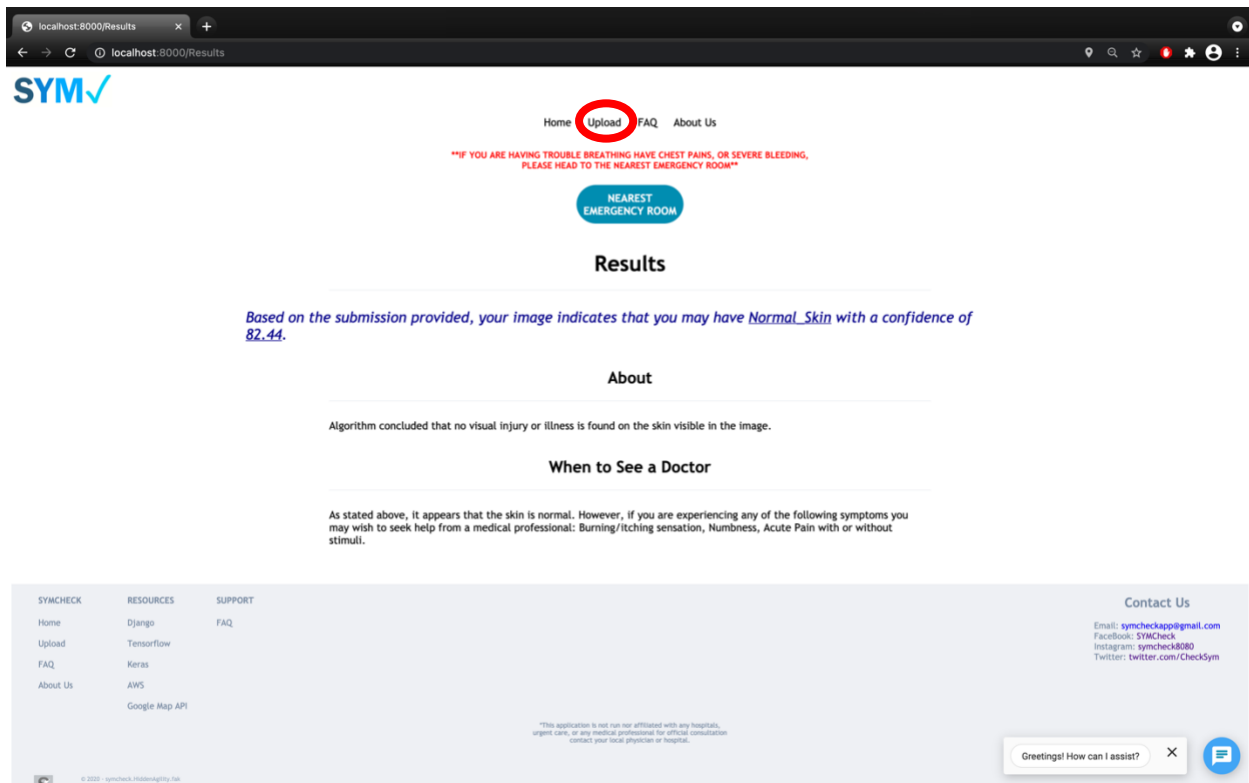
A small disclaimer at the bottom center reads: *"This application is not run nor affiliated with any hospitals, urgent care, or any medical professional for official consultation contact your local physician or hospital."* In the bottom right corner, there is a chat bubble that says "Good day! What can I do for you today?" with a close button (X) and a speech bubble icon.

After clicking “Skip to Results,” you will be taken to your final Results page, similar to that shown on the following page:



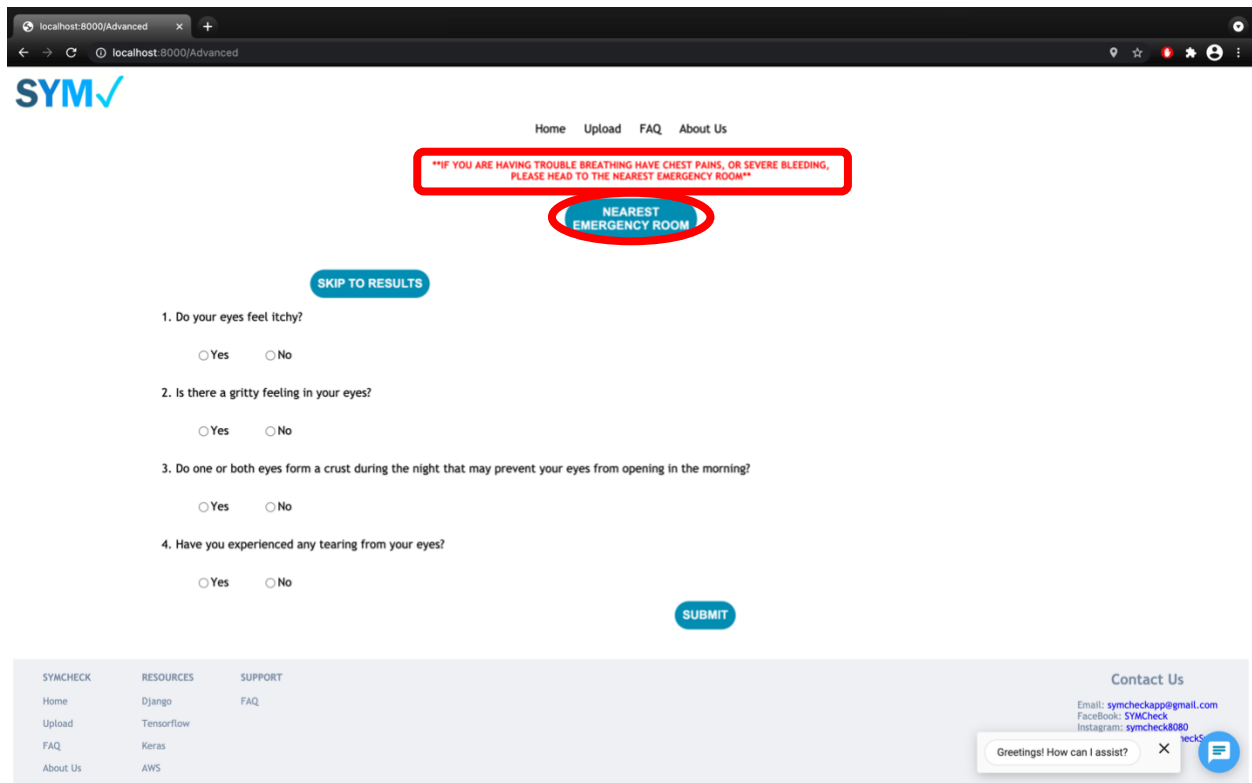
Congratulations on receiving your completed illness prediction from SymCheck!

Should you wish to start a new diagnosis, or at any time wish to restart your current diagnosis, simply click the “Upload” tab found in the top navigation bar as shown on the following page to return to the image upload and upload a new image. (Conversely, you can also return to the homepage in the same way and click “Upload Images” from there.)



Nearest Emergency Room button

If at any time during this process you feel any of the symptoms outlined below, or deem your illness/ailment life threatening in any way, click on the “Nearest Emergency Room” as shown on the following page:



SYM

Home Upload FAQ About Us

****IF YOU ARE HAVING TROUBLE BREATHING HAVE CHEST PAINS, OR SEVERE BLEEDING, PLEASE HEAD TO THE NEAREST EMERGENCY ROOM****

NEAREST EMERGENCY ROOM

SKIP TO RESULTS

1. Do your eyes feel itchy?

☐ Yes ☐ No

2. Is there a gritty feeling in your eyes?

☐ Yes ☐ No

3. Do one or both eyes form a crust during the night that may prevent your eyes from opening in the morning?

☐ Yes ☐ No

4. Have you experienced any tearing from your eyes?

☐ Yes ☐ No

SUBMIT

SYM CHECK

Home
Upload
FAQ
About Us

RESOURCES

Django
Tensorflow
Keras
AWS

SUPPORT

FAQ

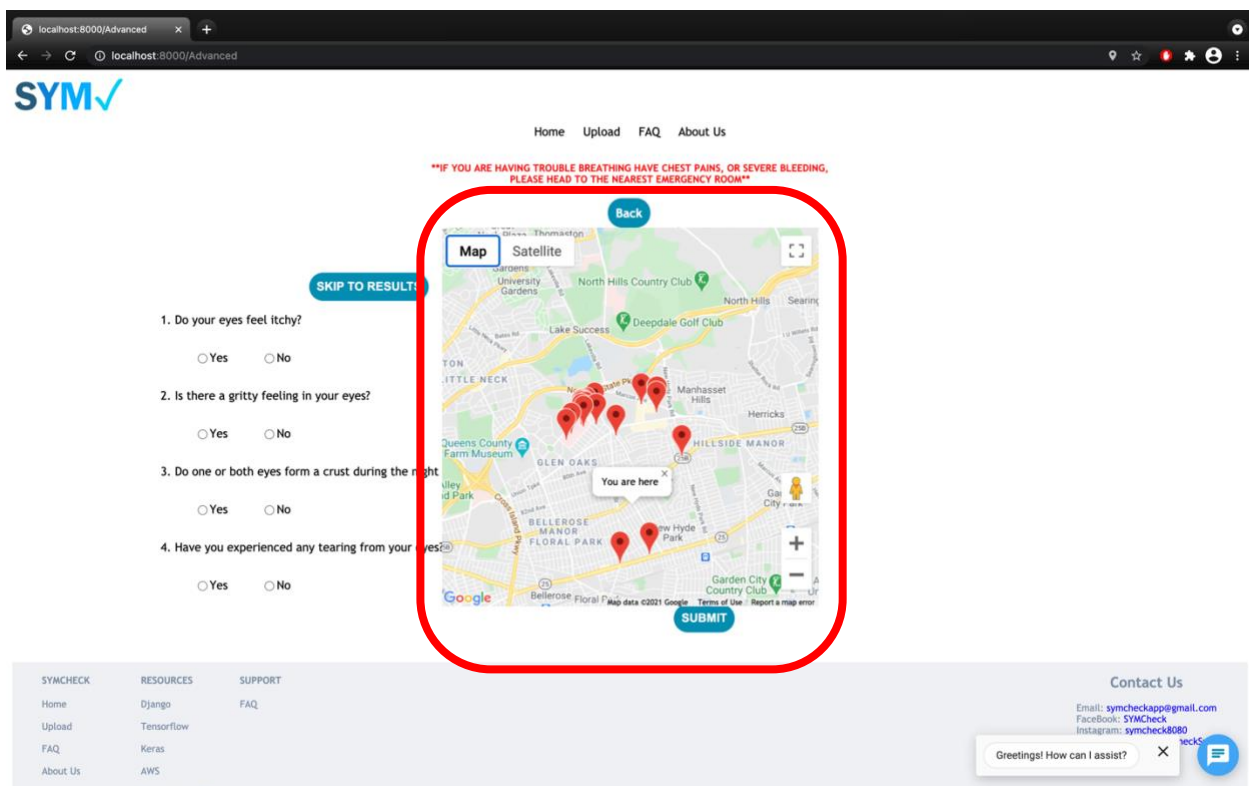
Contact Us

Email: symcheckapp@gmail.com
Facebook: SYMCheck
Instagram: [symcheck8080](https://www.instagram.com/symcheck8080)

Greetings! How can I assist?

check5

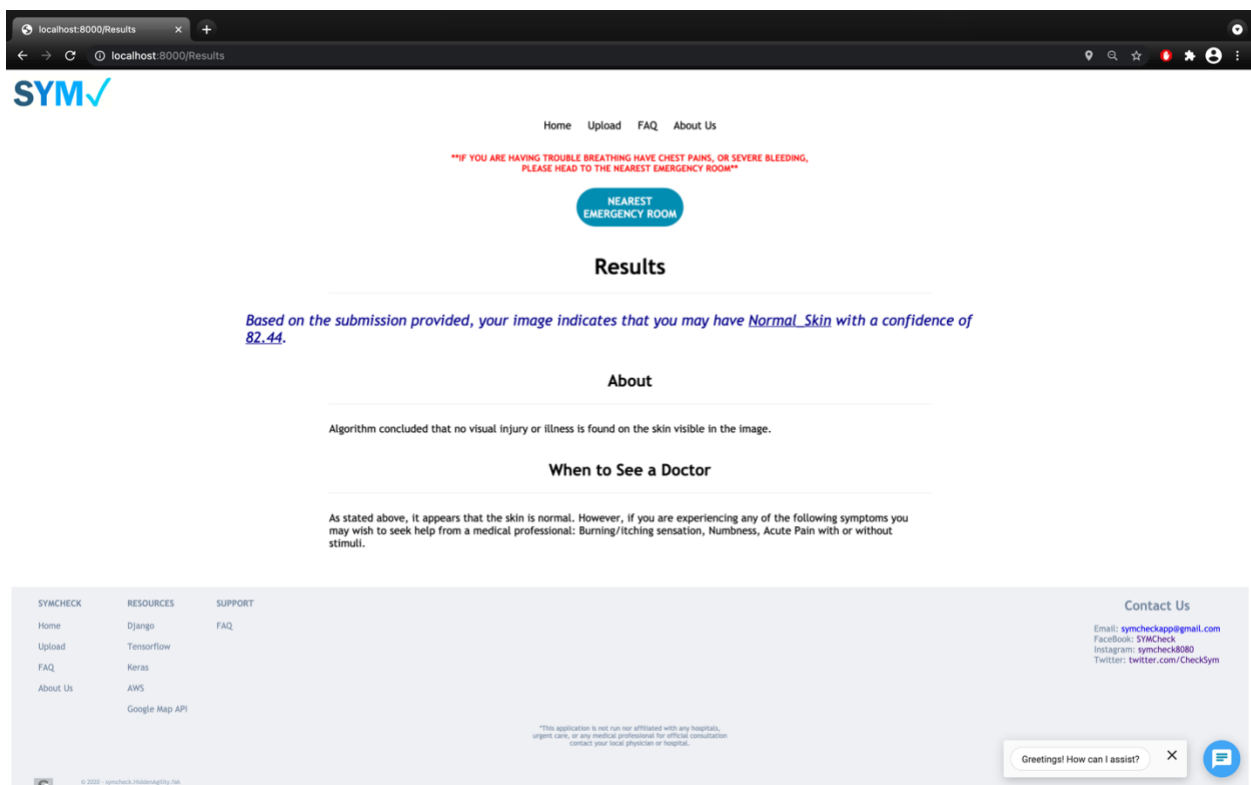
This will open a dynamic Google Maps window within the SymCheck application, showing you the locations of all healthcare facilities nearest you.



To close this map pop-up, simply press the “Back” button shown above the map itself.

Results Page

After uploading your image, and choosing to complete or opt out of an advanced prediction, you will reach your individual, illness-specific results page, a sample of which is shown below:



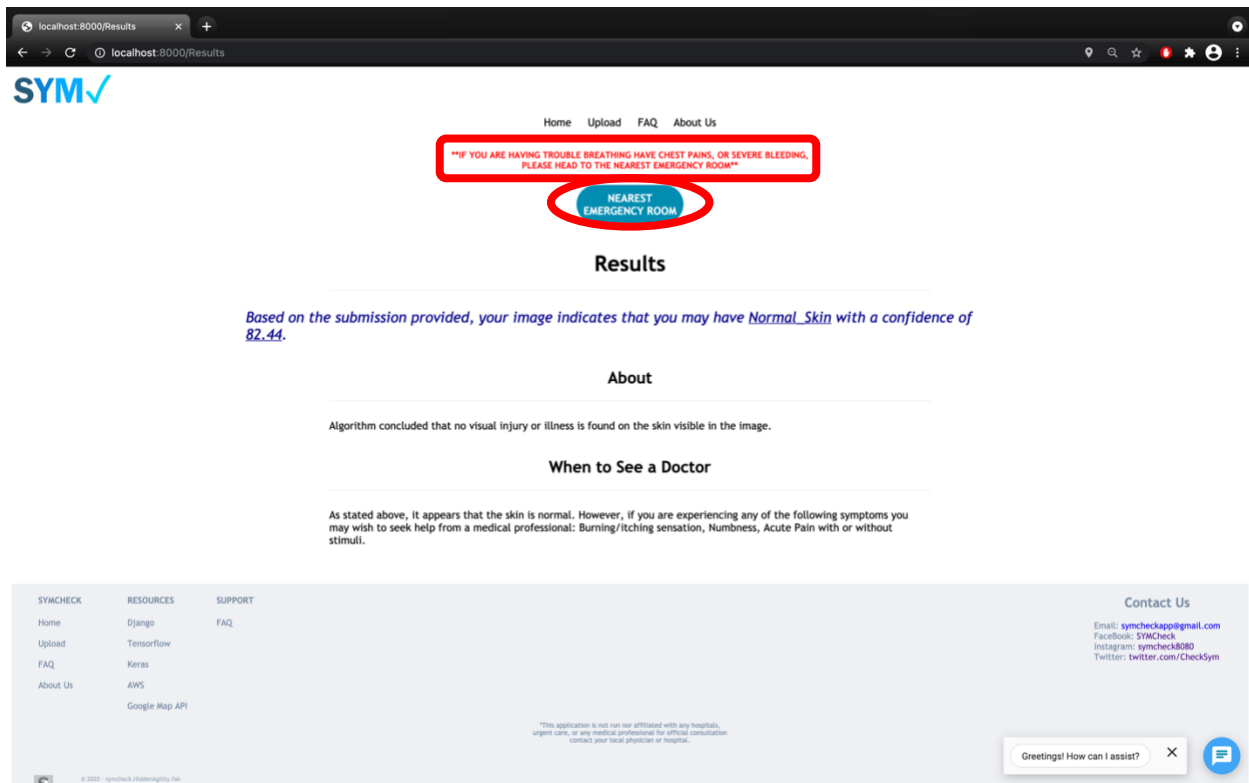
In the “Results” field, you will see what illness/ailment you are predicted to having based on our algorithm’s analysis of your uploaded image, as well as the percentage of probability of your having that specific illness based on your image, and any advanced questions answered.

In the next, “About” field you will see a quick summary of that illness, as well as potential links to official health websites (i.e. the Center for Disease Control or CDC) for more information on said specific illness.

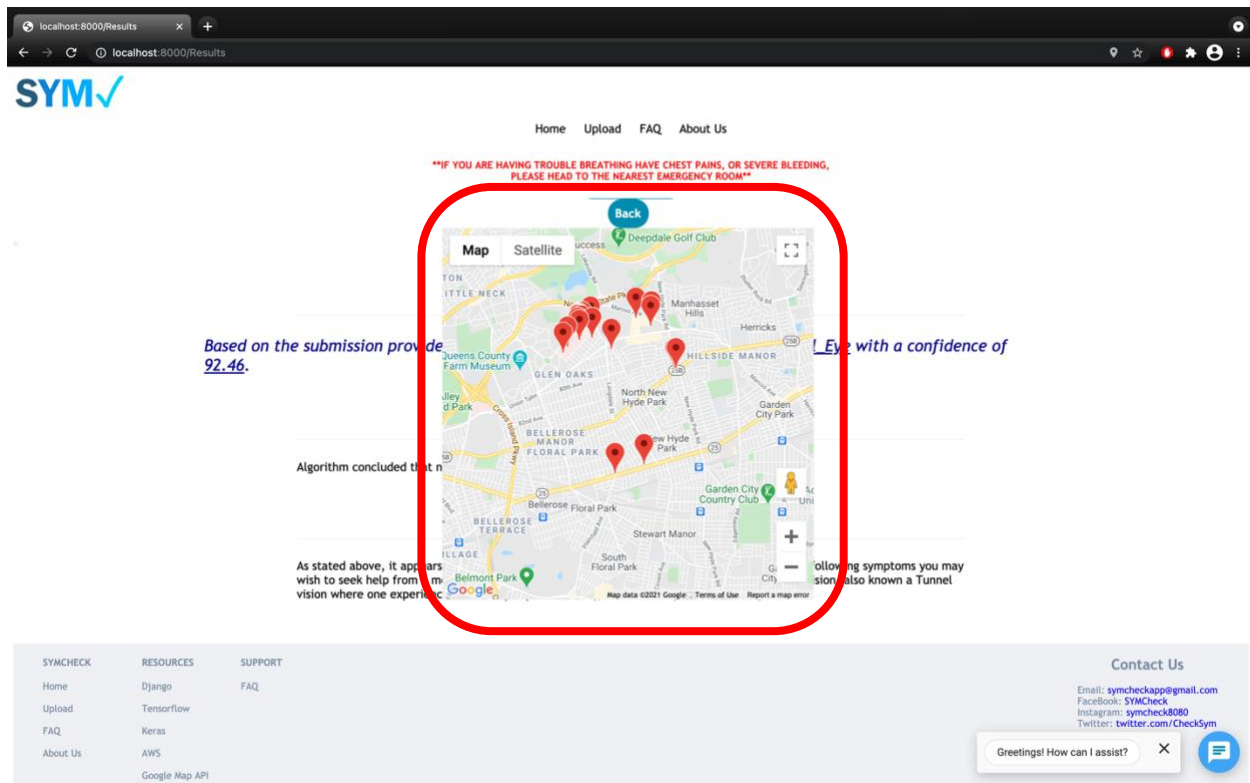
And lastly, the “When to See a Doctor Field” will provide a quick list of patient-specific conditions, and or symptoms that require further, sometimes immediate medical attention, and thus recommendations on under what circumstances you should seek an official diagnosis from a healthcare professional (remember, SymCheck provides only a cursory diagnosis to potentially save you time with home remedies, or save you a visit, but does NOT replace an official diagnosis from a healthcare professional).

Nearest Emergency Room button

If at any time whilst on this page you feel any of the symptoms outlined, or deem your illness/ailment life threatening in any way based on recommendations given, click on the “Nearest Emergency Room” as shown on the following page:



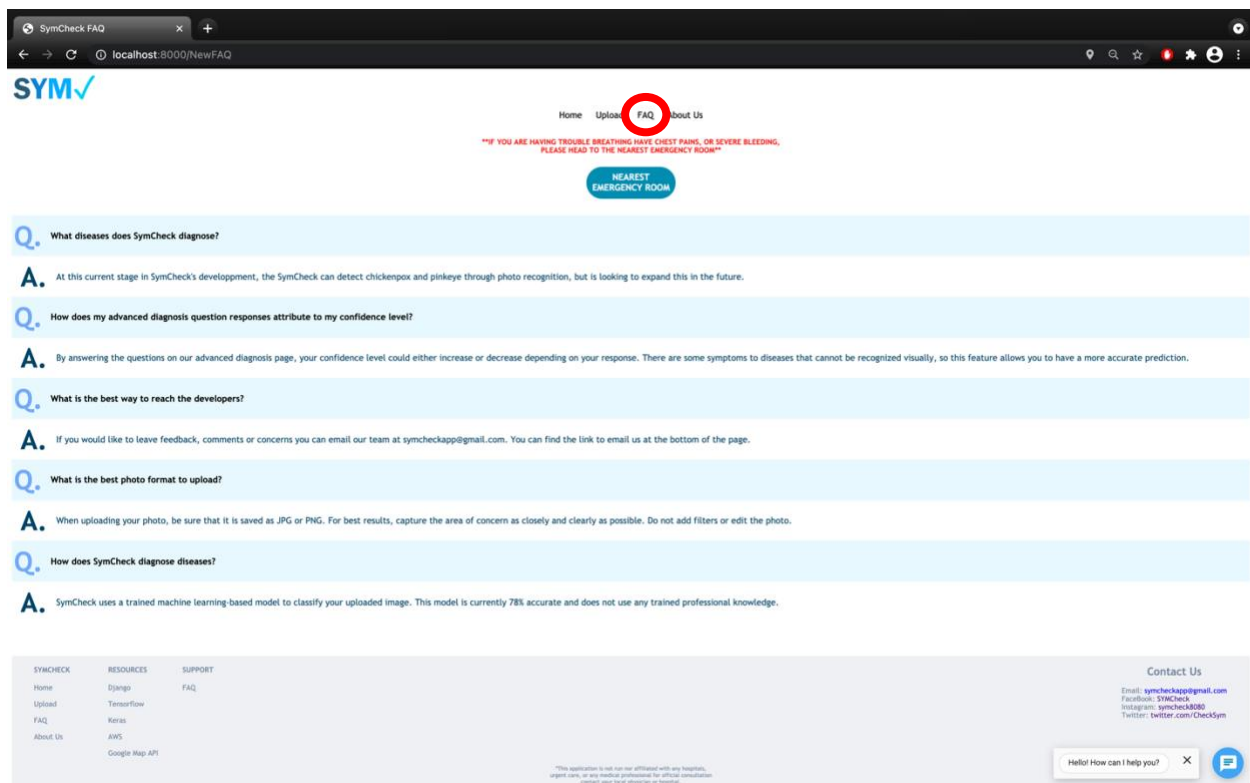
This will open a dynamic Google Maps window within the SymCheck application, showing you the locations of all healthcare facilities nearest you.



To close this map pop-up, simply press the “Back” button shown above the map itself.

FAQ Page

In the event that you have any questions regarding the SymCheck application at any time, or simply wish to view other patients' popular questions or concerns, you can navigate to SymCheck's Frequently Asked Questions or FAQ page as shown below:

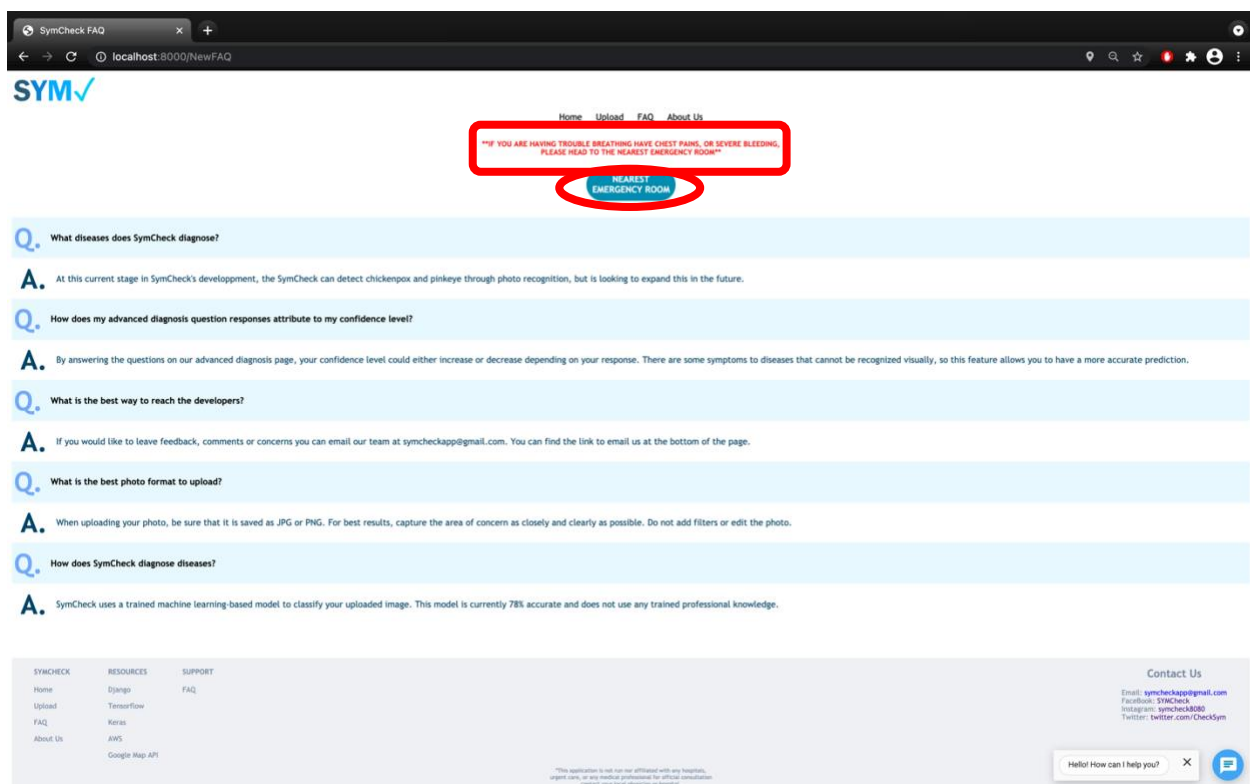


On this page, you will find and be able to peruse a list of those questions posed to our site and its developers often, dealing with anything from what illnesses are diagnosed/checked by

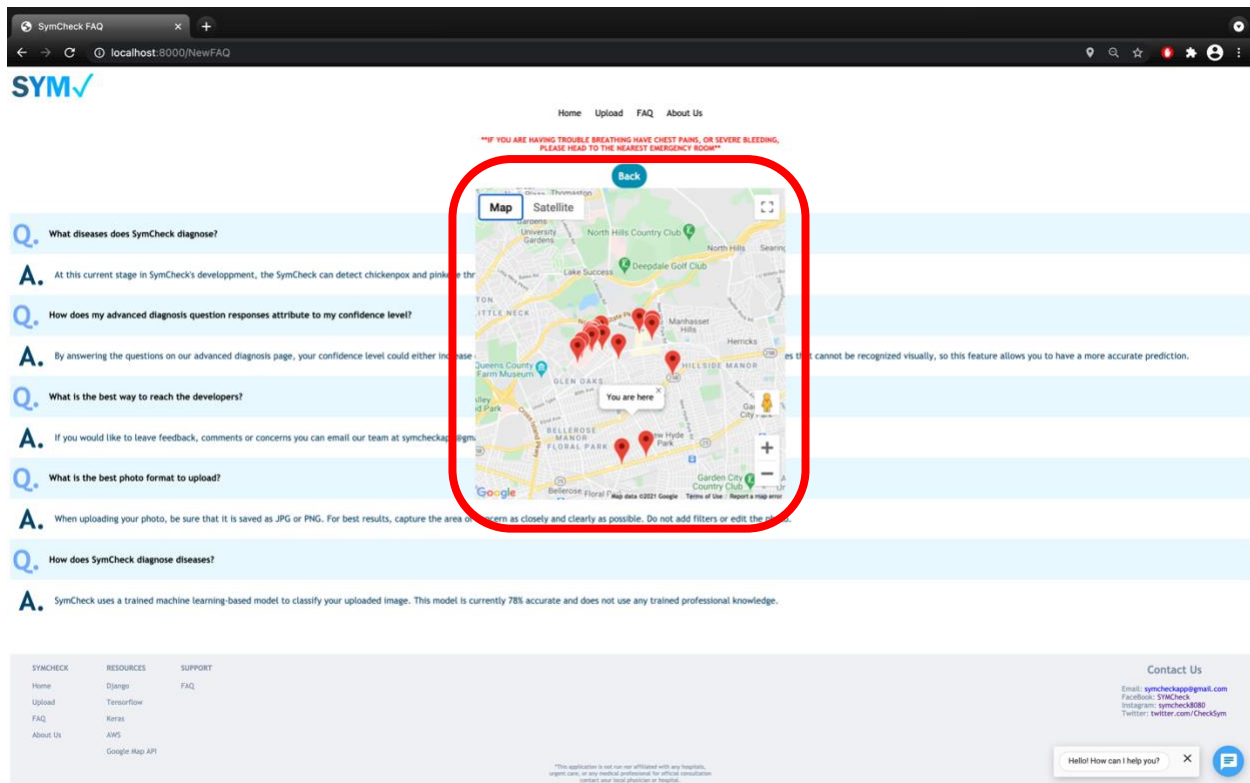
our image-based classification algorithm, to how the application works.

Nearest Emergency Room button

If at any time whilst reading through the FAQ page you feel any of the symptoms outlined below, or deem your illness/ailment life threatening in any way, click on the “Nearest Emergency Room” button:



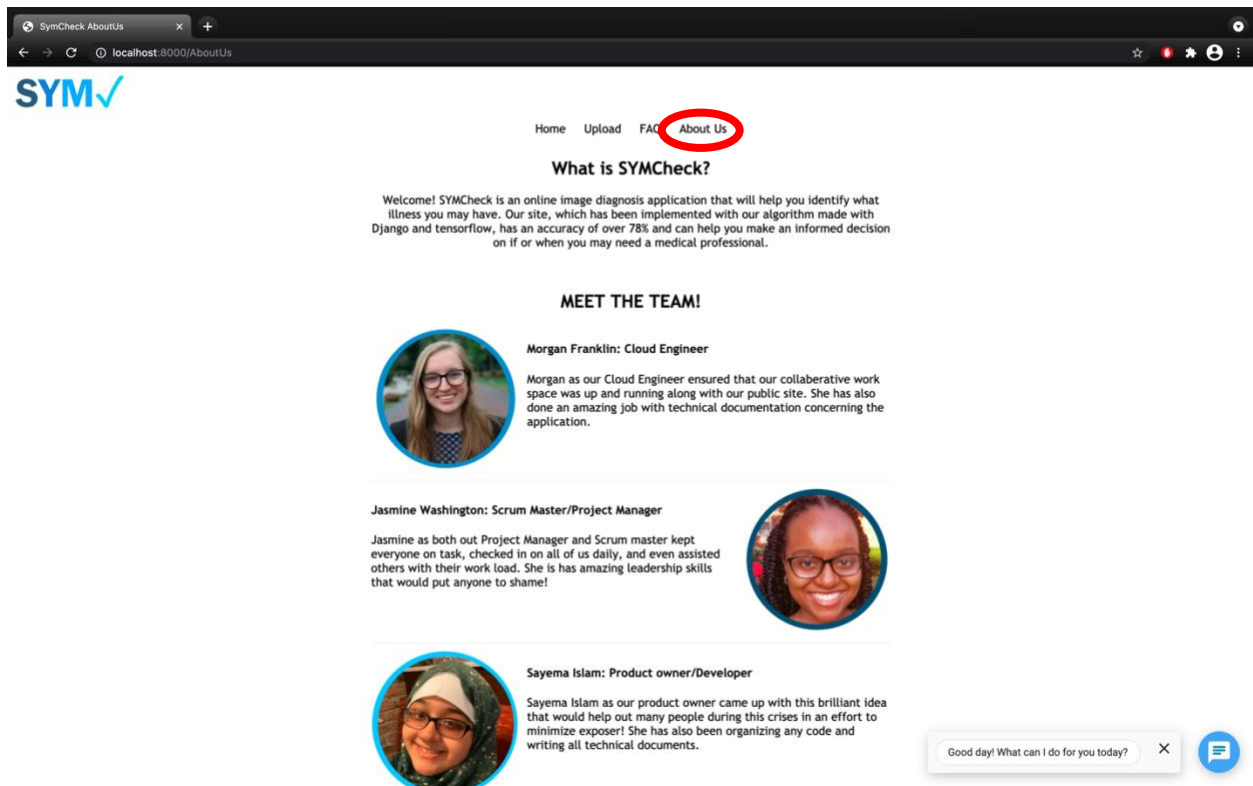
This will open a dynamic Google Maps window within the SymCheck application, showing you the locations of all healthcare facilities nearest you.

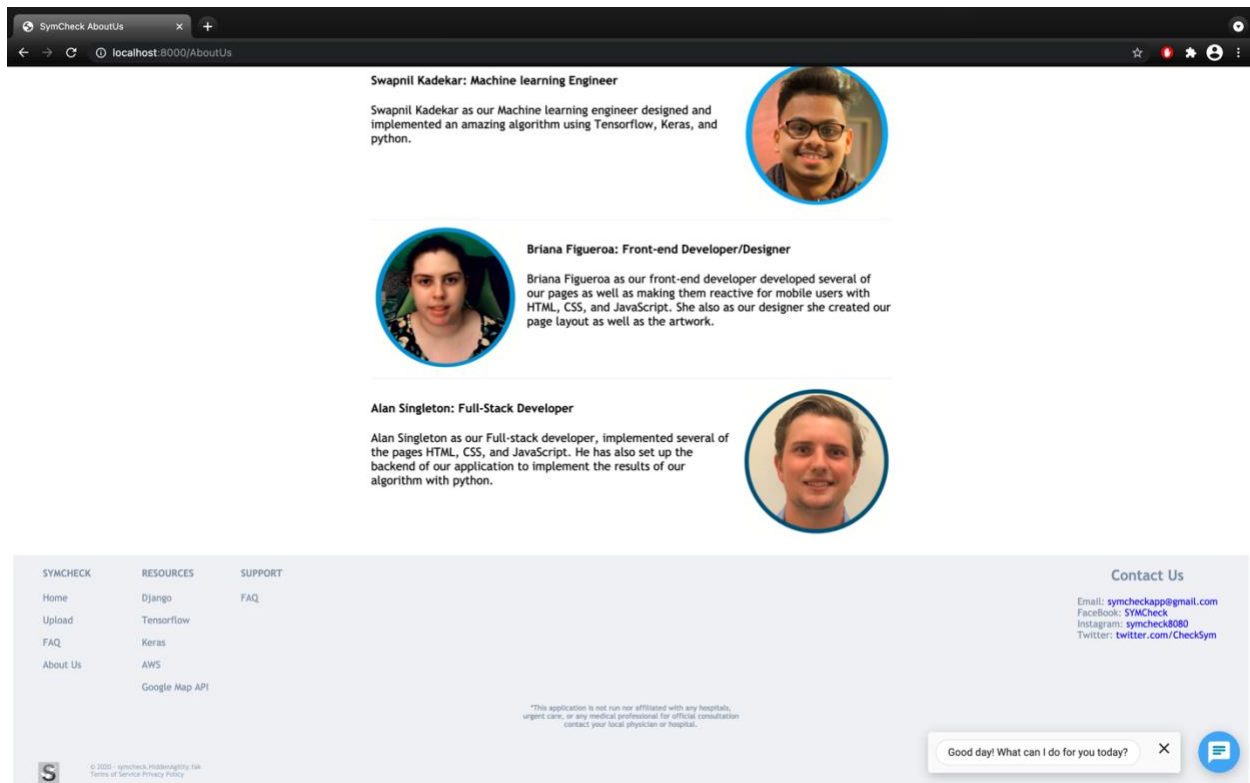


To close this map pop-up, simply press the “Back” button shown above the map itself.

About Us Page

If you are curious in learning more about the team behind the novel SymCheck application, you can navigate to the About Us page using the top navigation bar as shown below, from any page on the site.





The screenshot shows a web browser window displaying the 'SymCheck AboutUs' page. The page features three team members, each with a circular profile picture, a title, and a description of their role. The first member is Swapnil Kadekar, a Machine learning Engineer, who designed an algorithm using TensorFlow, Keras, and Python. The second member is Briana Figueroa, a Front-end Developer/Designer, who developed the front-end pages using HTML, CSS, and JavaScript. The third member is Alan Singleton, a Full-Stack Developer, who implemented the back-end using Python. The footer contains a navigation menu with links to Home, Upload, FAQ, and About Us, as well as a 'Contact Us' section with email, Facebook, Instagram, and Twitter links. A disclaimer at the bottom states that the application is not affiliated with any hospitals and is for informational purposes only. A chatbot icon is visible in the bottom right corner.

Swapnil Kadekar: Machine learning Engineer

Swapnil Kadekar as our Machine learning engineer designed and implemented an amazing algorithm using TensorFlow, Keras, and python.

Briana Figueroa: Front-end Developer/Designer

Briana Figueroa as our front-end developer developed several of our pages as well as making them reactive for mobile users with HTML, CSS, and JavaScript. She also as our designer she created our page layout as well as the artwork.

Alan Singleton: Full-Stack Developer

Alan Singleton as our Full-stack developer, implemented several of the pages HTML, CSS, and JavaScript. He has also set up the backend of our application to implement the results of our algorithm with python.

SYMCHECK
Home
Upload
FAQ
About Us

RESOURCES
Django
Tensorflow
Keras
AWS
Google Map API

SUPPORT
FAQ

Contact Us
Email: symcheckapp@gmail.com
Facebook: [SymCheck](https://www.facebook.com/SymCheck)
Instagram: [symcheck8080](https://www.instagram.com/symcheck8080)
Twitter: twitter.com/CheckSym

**This application is not run nor affiliated with any hospitals, urgent care, or any medical professional for official consultation contact your local physician or hospital.

© 2020 - symcheck, Inc. All rights reserved.
Terms of Service Privacy Policy

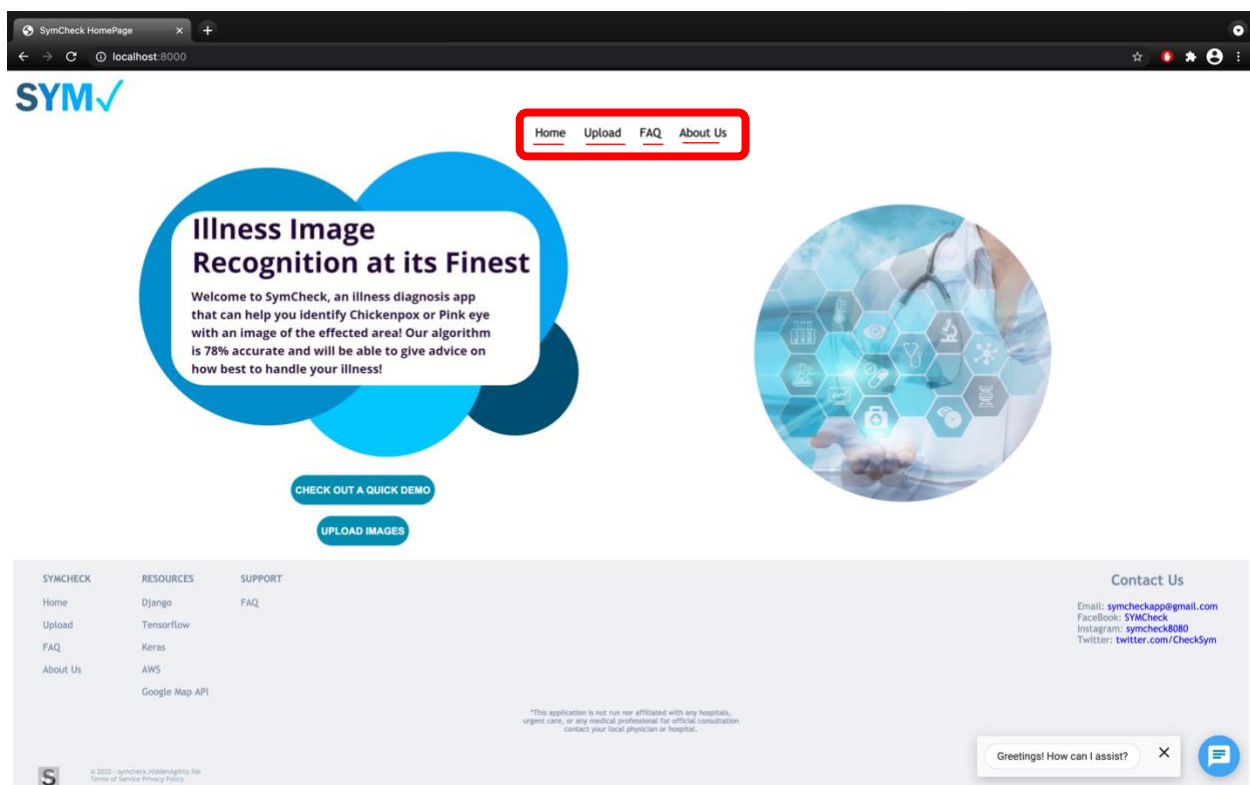
Good day! What can I do for you today?

On this page you can read about the specific roles each member of the SymCheck plays in the development and maintenance of the application.

Explanation of Sitewide Features

Site Navigation Bar

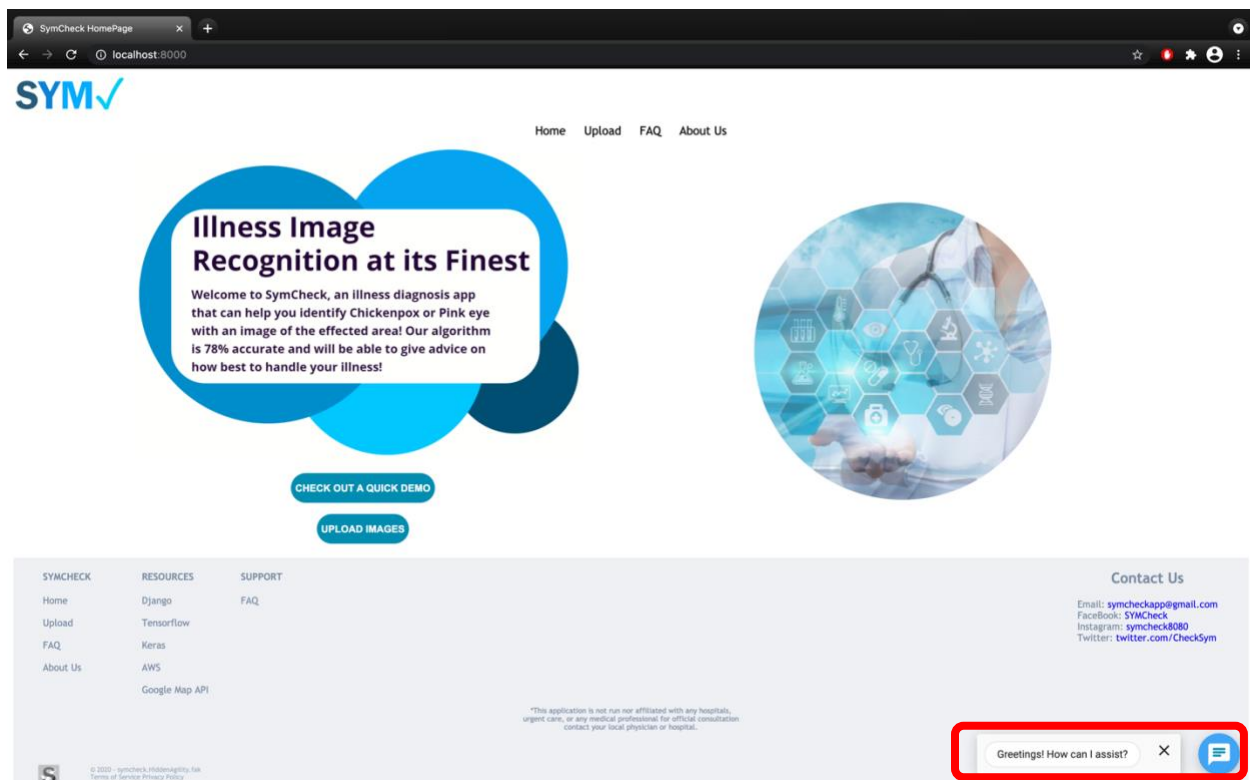
Every page on the SymCheck application features the site's top navigation bar as shown below:



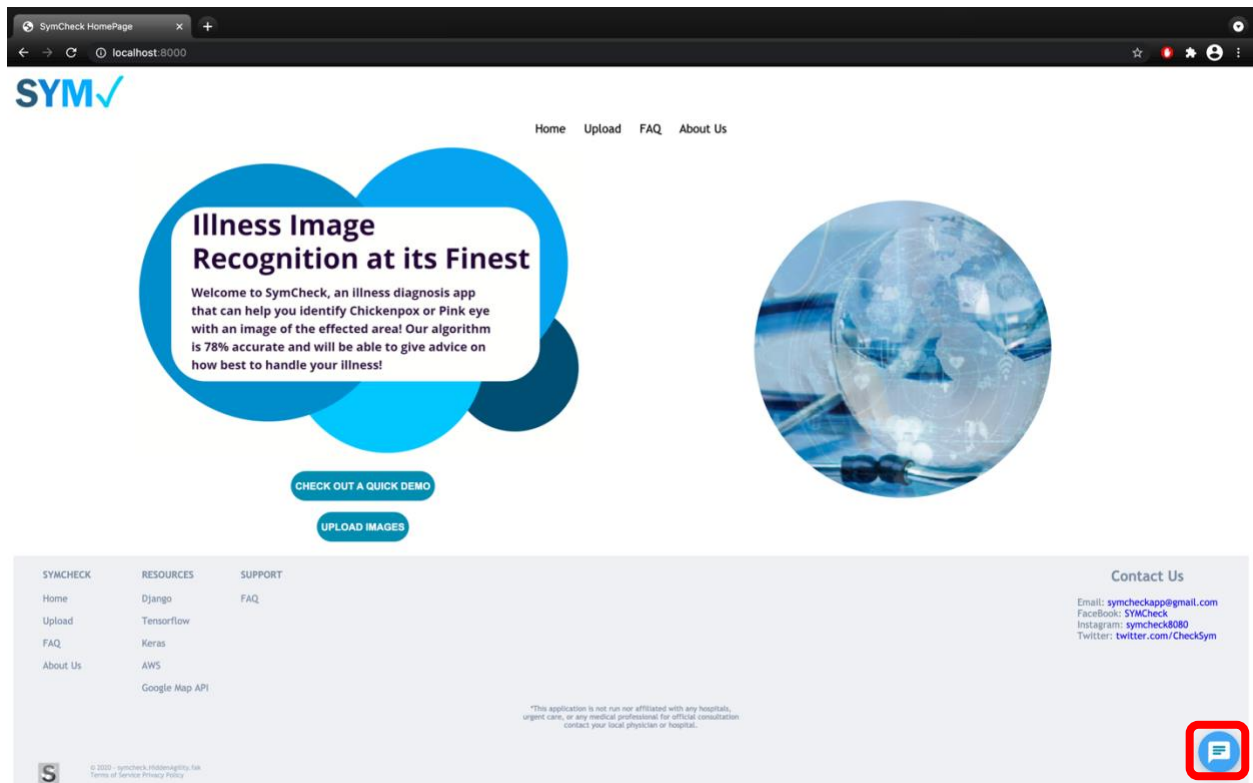
Click on the links/tabs within said navigation bar to navigate to the four main pages of SymCheck, namely the Homepage, the image Upload page, the FAQ page, and the About Us page.

Chatbot

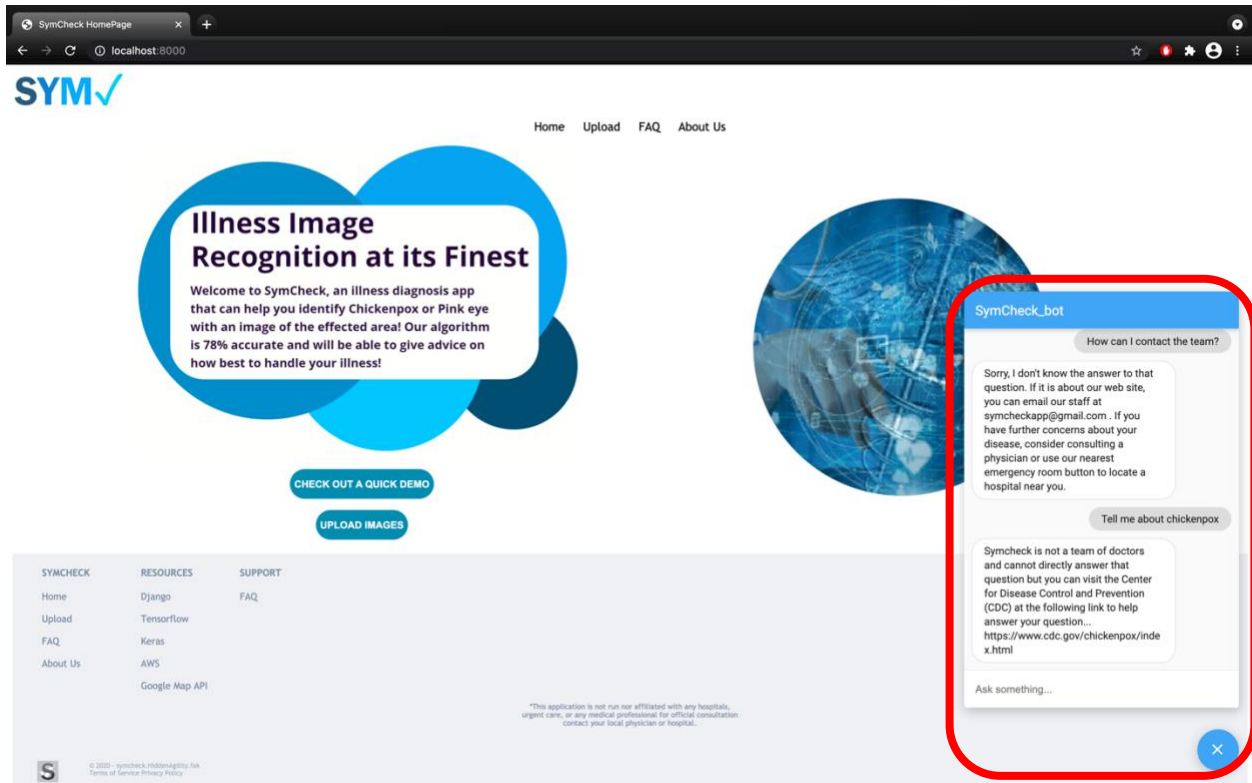
On every page on the SymCheck application you will have access to SymCheck's live chatbot to which you will be, at any time, able to field any and all questions you may have regarding using the application, illnesses/ailments, contacting the team, etc. The chatbot can be found in the bottom right corner of every page as shown below:



The chatbot's welcome message can be closed by simply clicking the "x" button, or clicking the chat icon itself, and can be toggled on and off respectively by repeatedly clicking the same icon again. Here is an example of the chatbot with the welcome message toggled off:



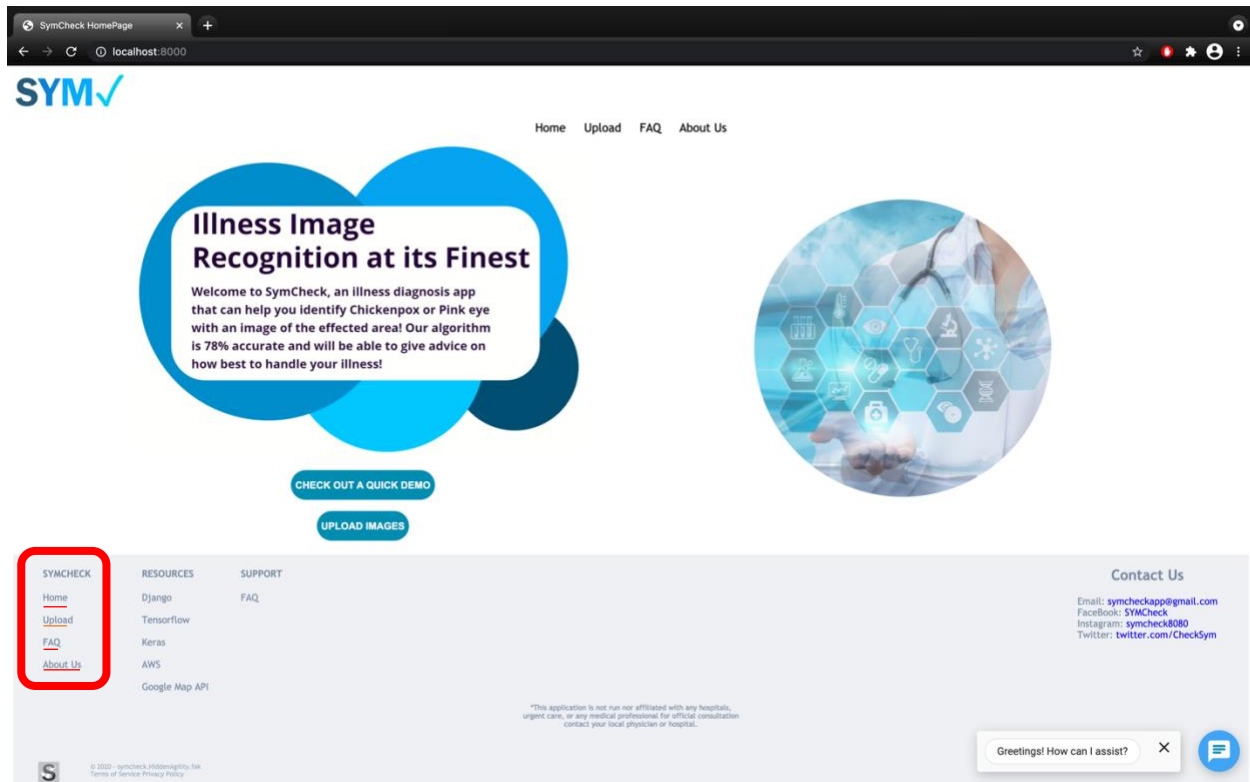
In order to open and use the chatbot in order to answer in questions you might have, simply click on the welcome message itself, and then type your question into the window. The chatbot will then answer your question with a series of pre-programmed responses it has at its disposal in its backend APIs utilized by the SymCheck application:



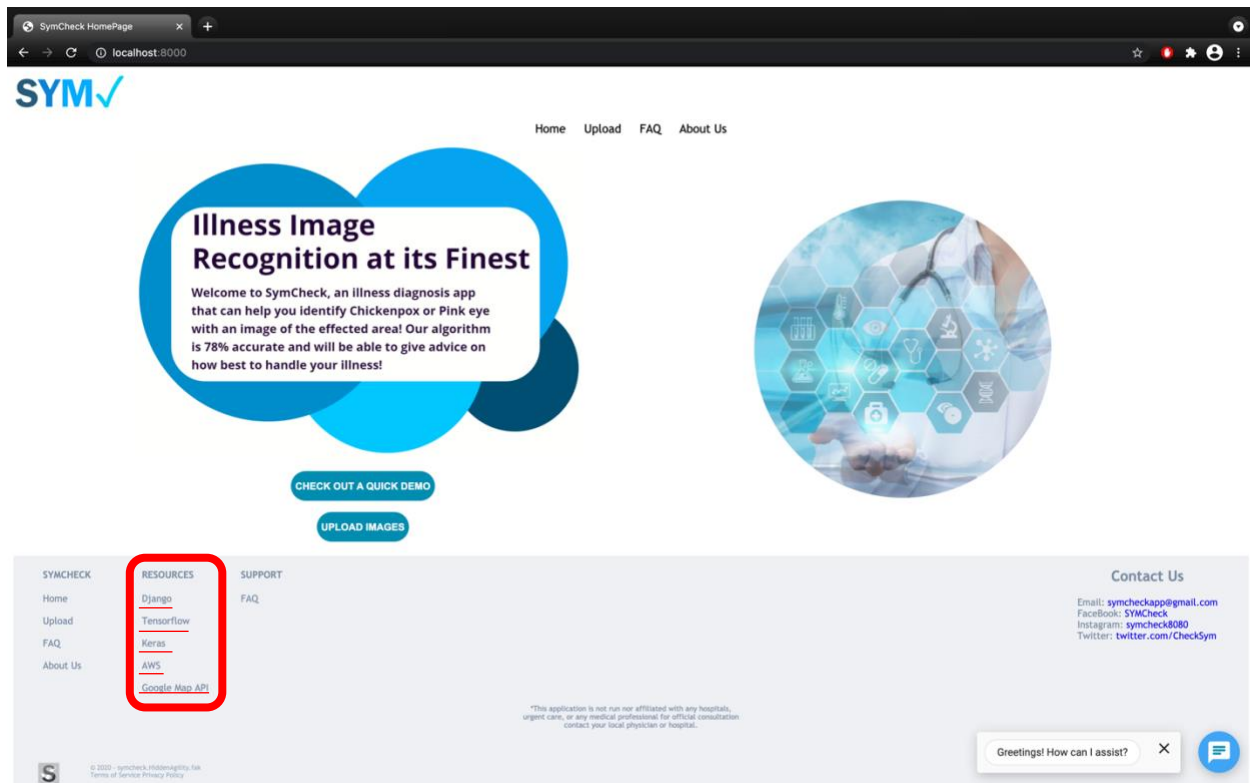
Simply click the “x” below the chat window when you are done to close the chat again.

Site Footer and its Resources

Every page within the SymCheck application features the same site footer with links to all the pages of the application (a functionality mirrored in the site’s top navigation bar):



In this footer, you can also find links to various resources used to create, build, and run SymCheck for more information:

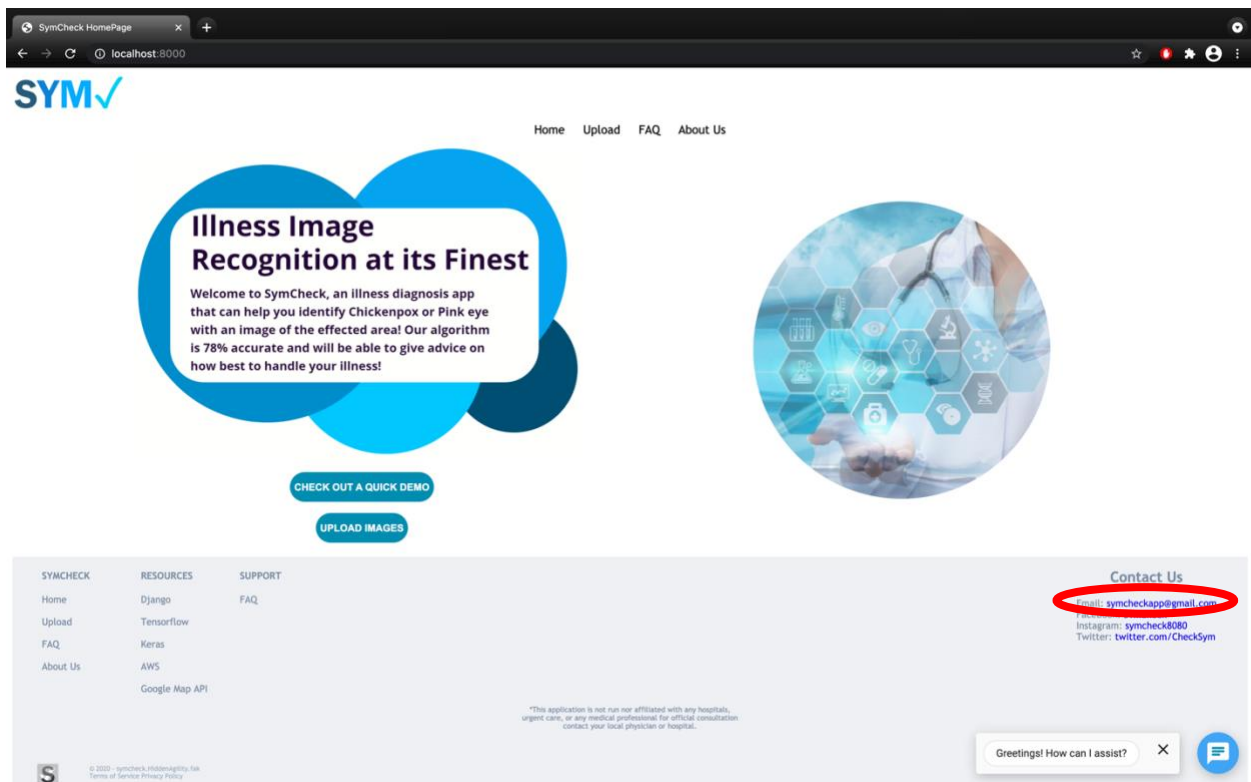


***Please note that clicking any of these links will take you to other websites, outside of the SymCheck application domain.

Contacting the Team

Emailing the Team

If at any time you wish to provide contact the team with any questions or concerns, or simply submit any suggestions or other feedback you have regarding the SymCheck application, you can email the team by clicking the email link found on the right portion of the page footer, as shown below:

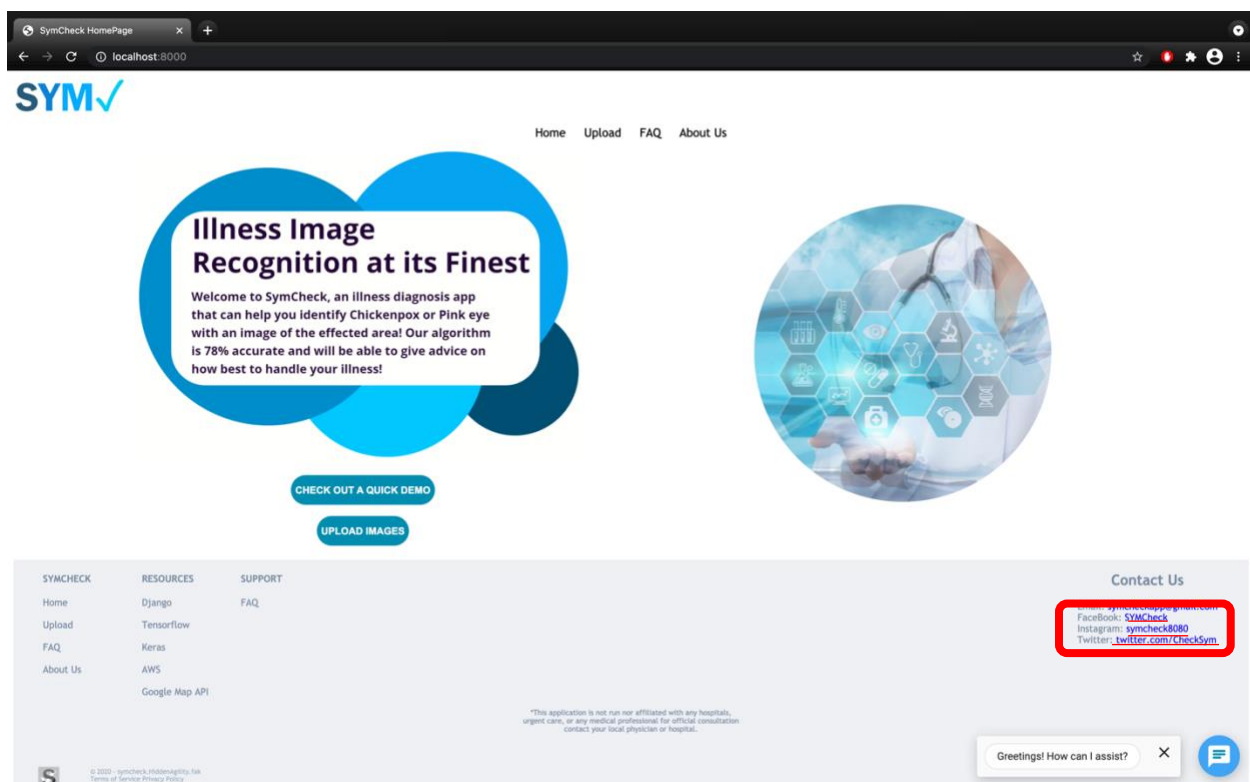


This will prompt your browser to open an email window where you can then compose an email as you wish, to be submitted directly to a mailbox dedicated solely to the SymCheck

application. Our team checks this mailbox daily on business days, so we'll do our best to get back to you within 24-48 hours. We look forward to hearing from you!

Social Media

You can also learn more about and contact SymCheck through our various social media accounts, linked within the site footer as shown below:



Be sure to follow us to stay up-to-date on all things SymCheck!

