

Face Mask Portraits



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Sunderland**

In this activity you will use Google's **MediaPipe** AI Models to recognise faces from a webcam.

The idea is to use a web browser application that integrates the webcam and the model and a drawing programme to create masks to overlay onto faces detected in the webcam feed. **You** have control of the masks! Have Fun!



WARNING

Be kind with the masks and don't offend anyone!

Let's get going!



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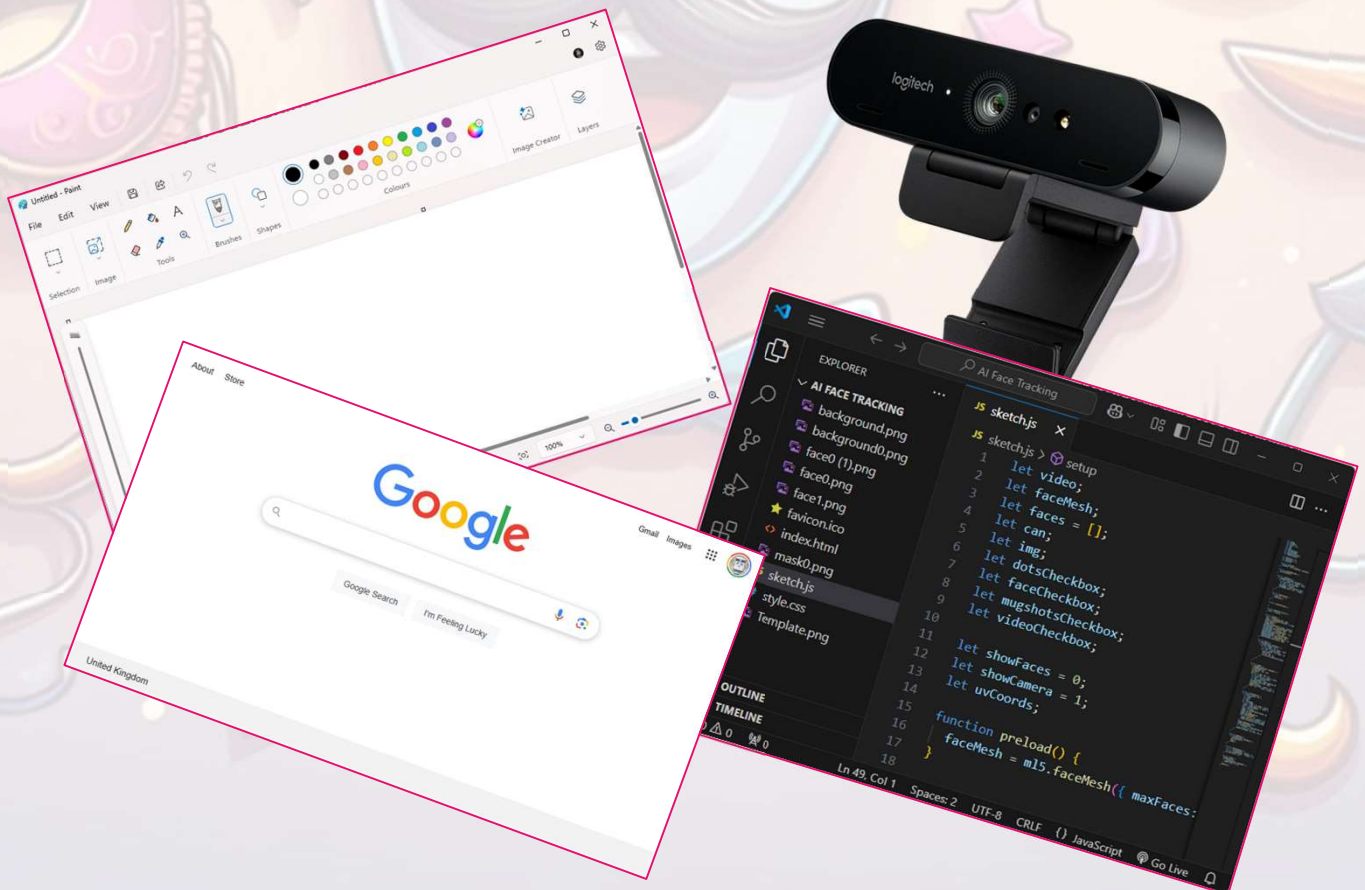
What do we need!

For this activity we need the following:

- A **web browser** (we recommend you use Chrome).
- A **webcam** connected to the computer.
- A **Drawing Package** (Paint, GIMP, Photoshop).
- **Your Face (and others 😊)!**

The lab computers should already be setup, but if you get stuck at any point, ask for help. We are here to help you. Don't worry if you don't get everything finished in this session there are sample masks in the download.

Source files: <https://github.com/neliot/Portraits>



Let's get going!



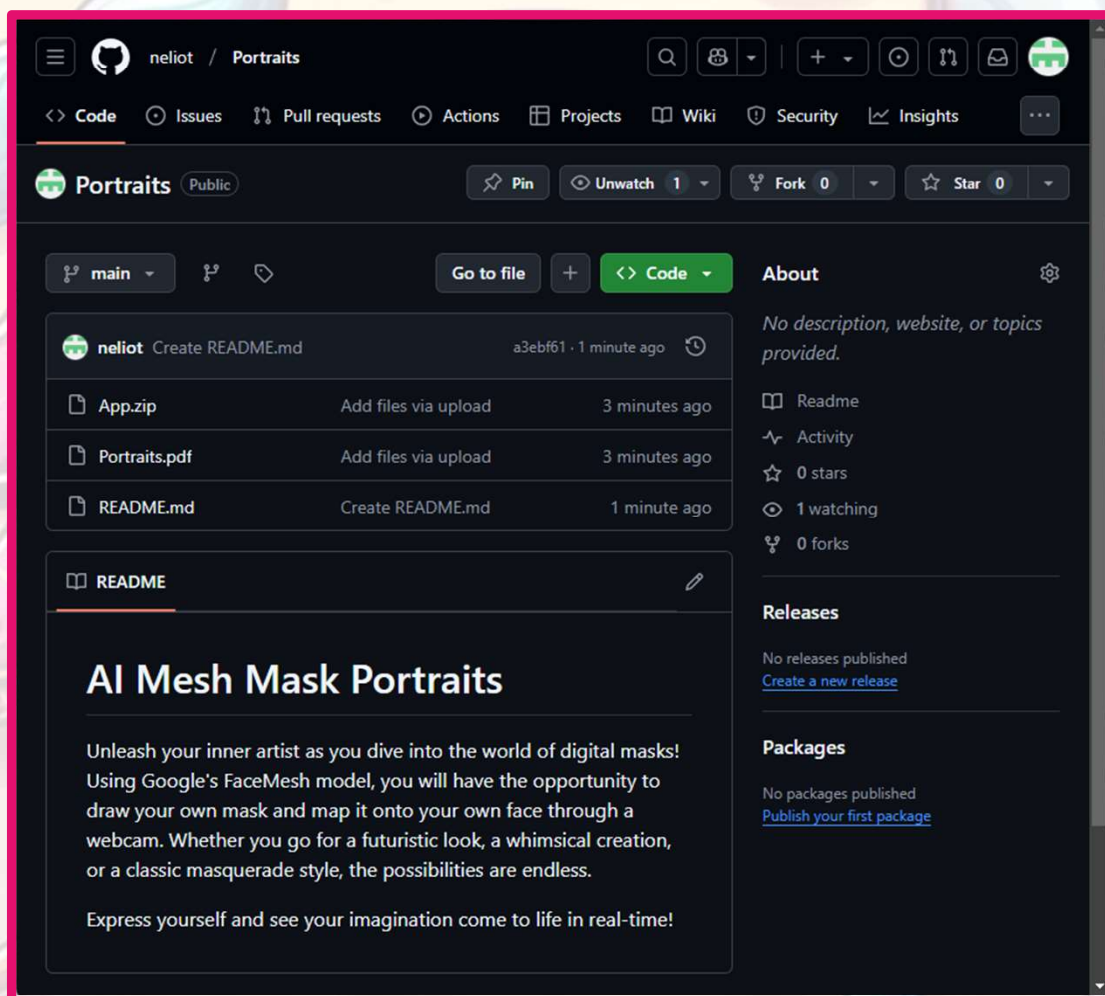
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Download the application!

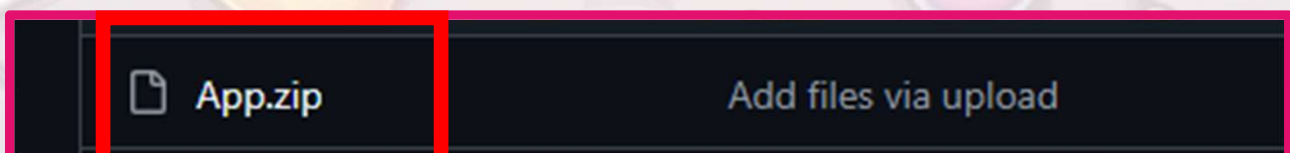
In your browser enter the URL below:

<https://github.com/neliot/Portraits>

You should see a page similar to the one below:



Click on the App.zip file:



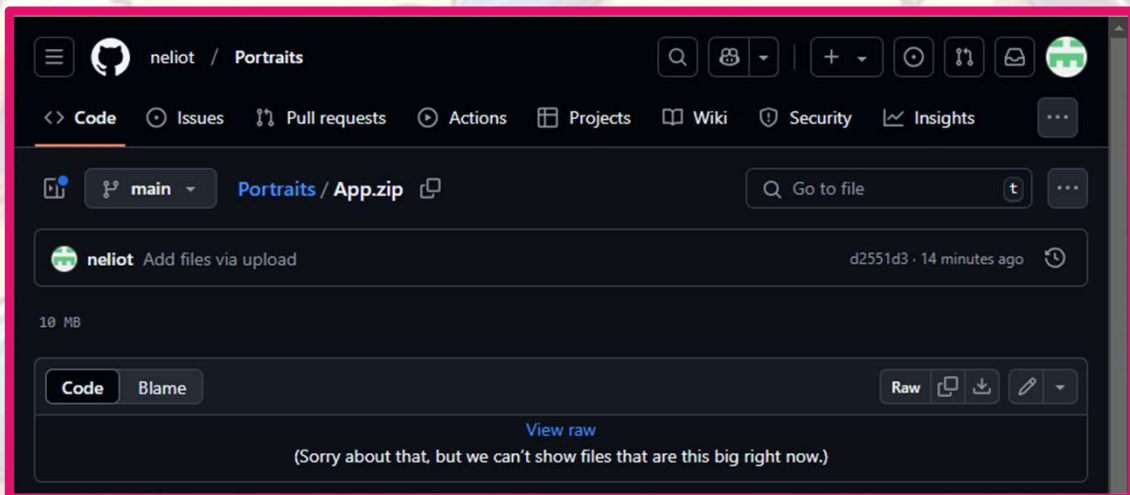
Let's get going!



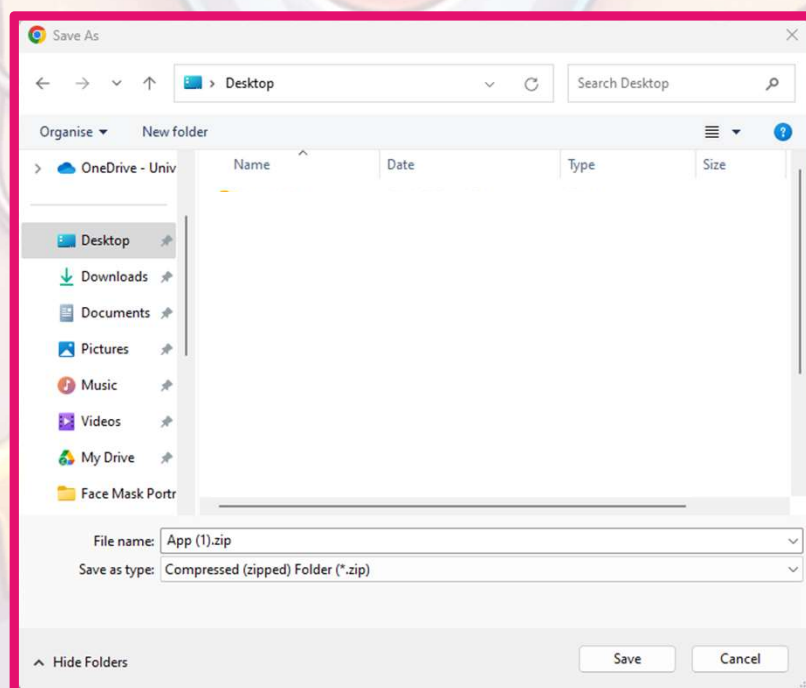
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Download the application!

You will now be presented with the following screen:



Click on the download icon and save the file to the Desktop.



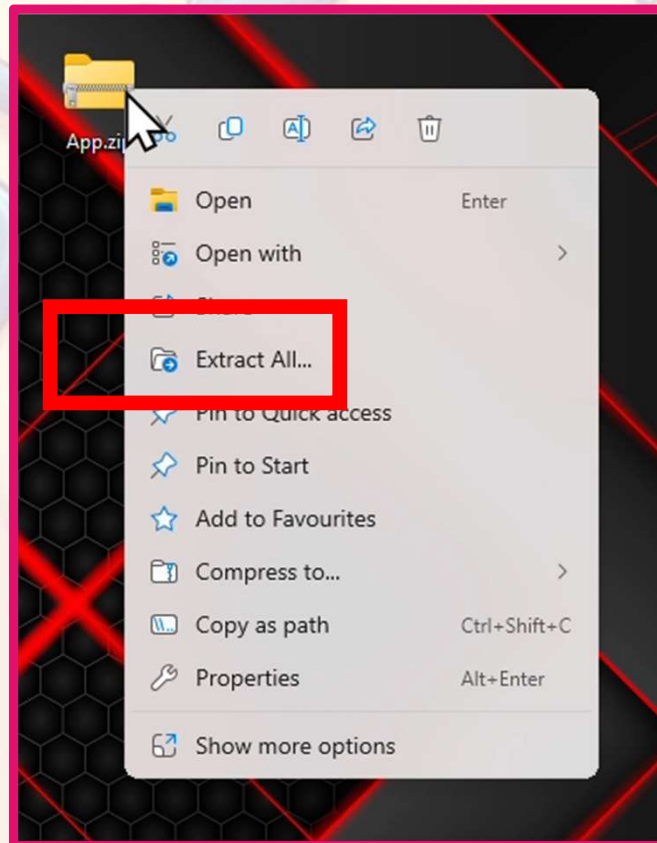
Let's get going!



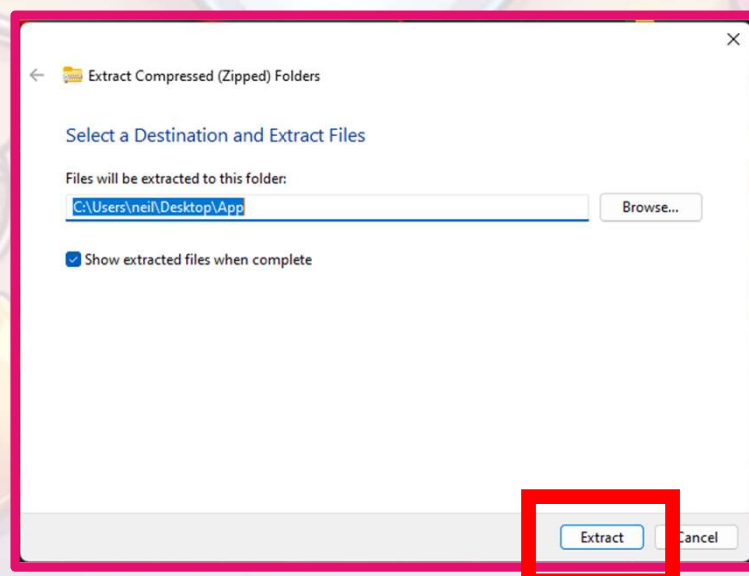
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Extract the application!

Go to the desktop and find the file you just downloaded and right click on it.



Select **Extract All** and then select **Extract**.



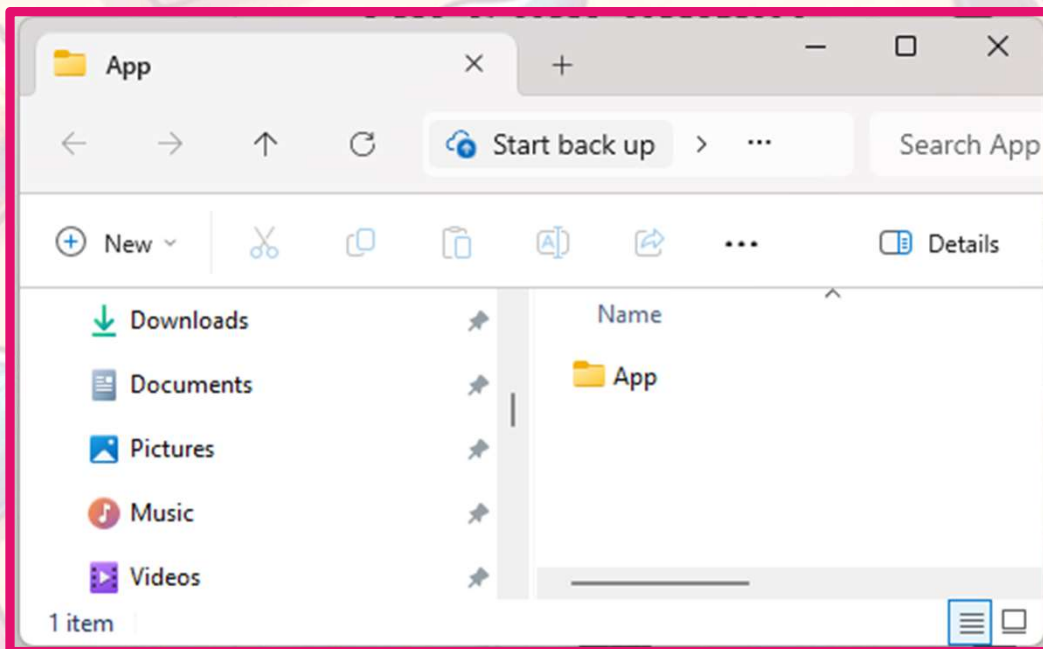
Let's get going!



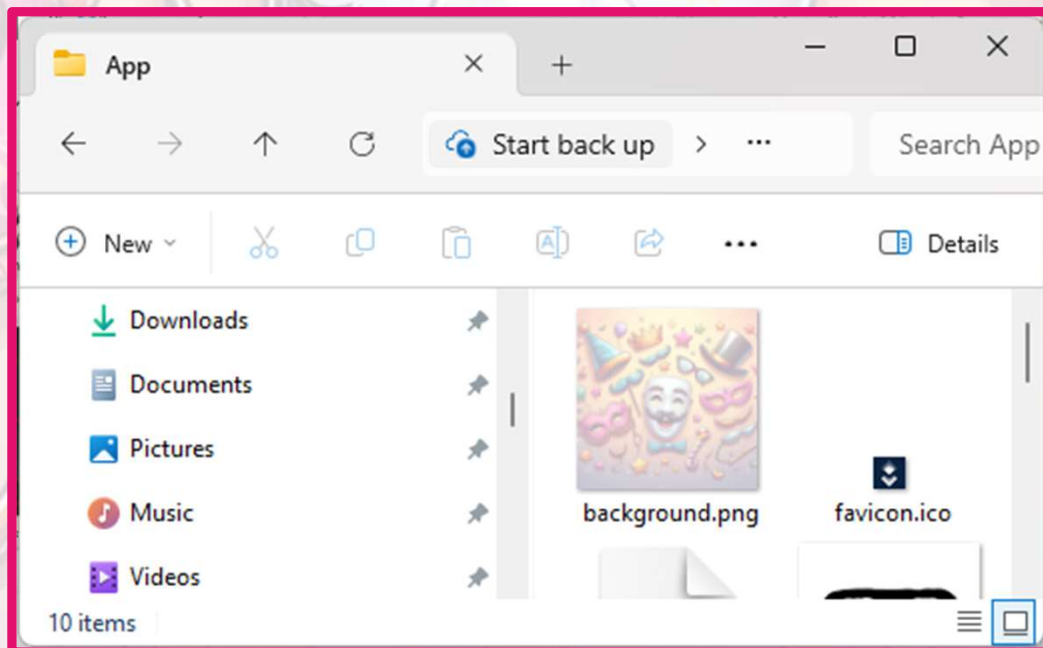
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Running the application!

You can now see the Extracted application folder.



Go into the **App** folder by double clicking on it.



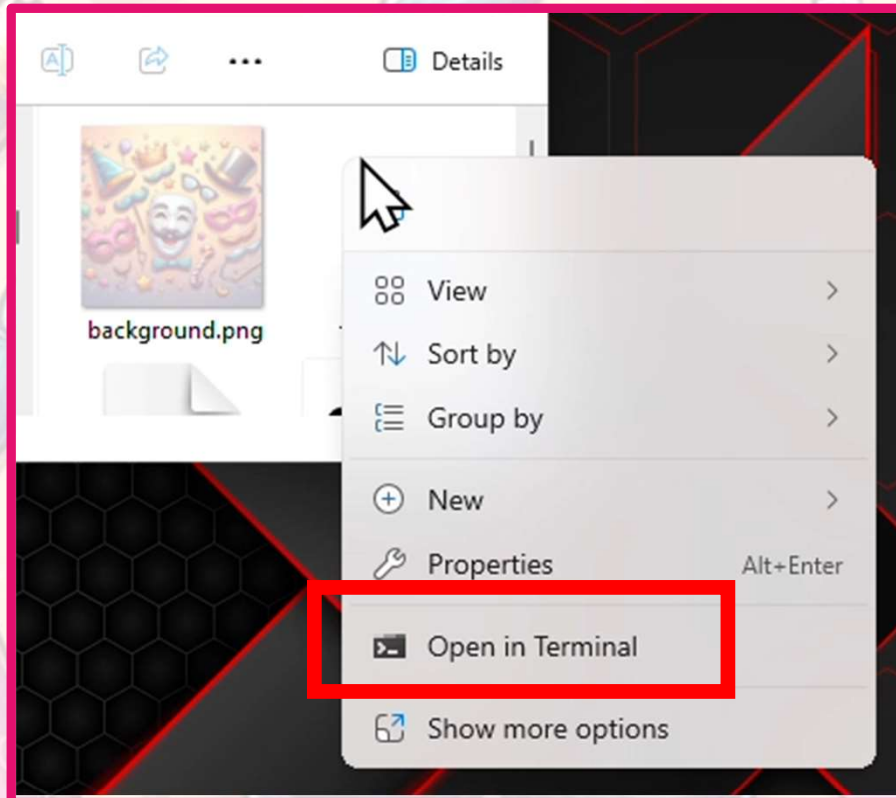
And now the Editor



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Running the application!

Right Click in the white space above the **icon** file to bring up the **action menu** as below:



Select the **Open in Terminal** option. When the terminal window opens go to it and type in **"code ."** (without the quotes!) and press the **RETURN** key. You should now have **VS Code** running with the **App** folder showing the files. If you get a message asking if you Trust this folder select **Yes**.

Yes, I trust the authors

Trust folder and enable all features

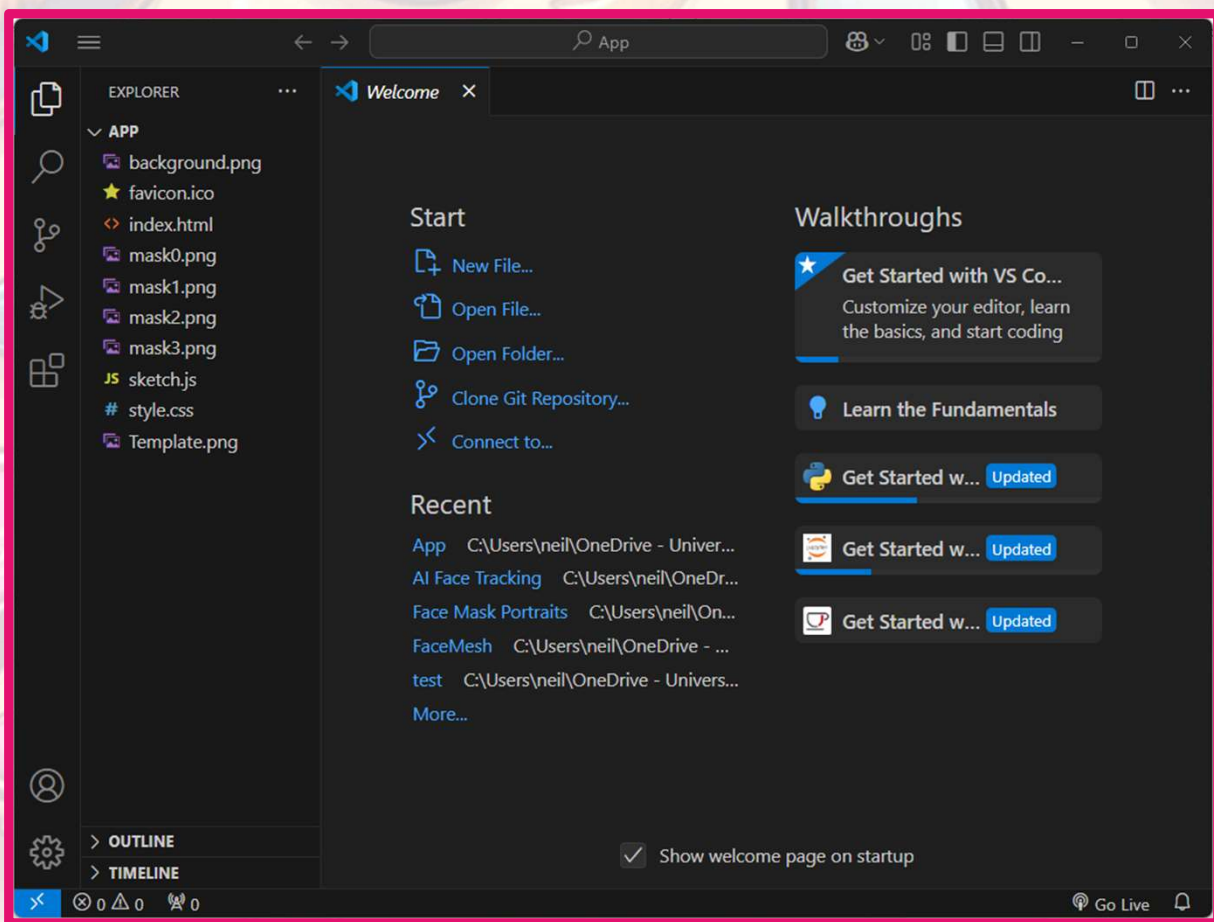
And now the Editor



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Running the application!

Now you can launch the application. At the bottom of the screen is an option “Go Live”. This is the built in **Live Server** which is a local web server which runs the application.



Go Live

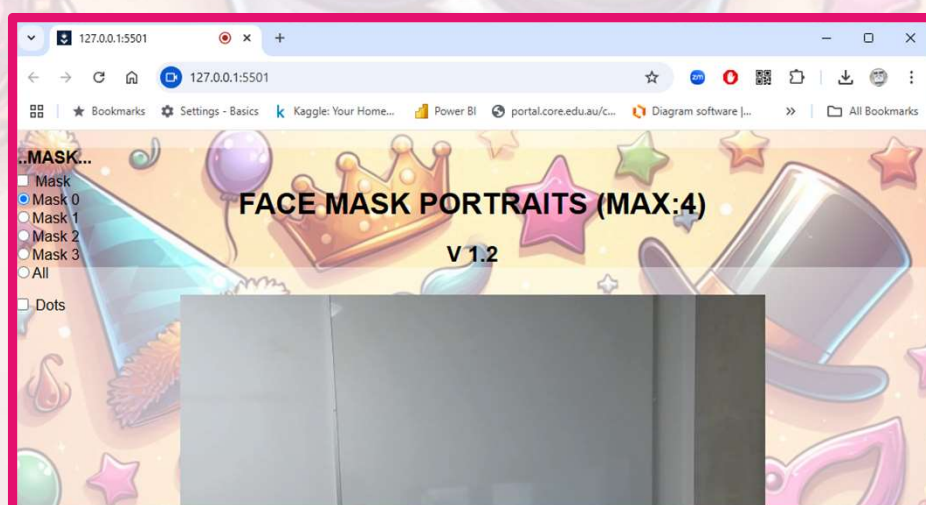
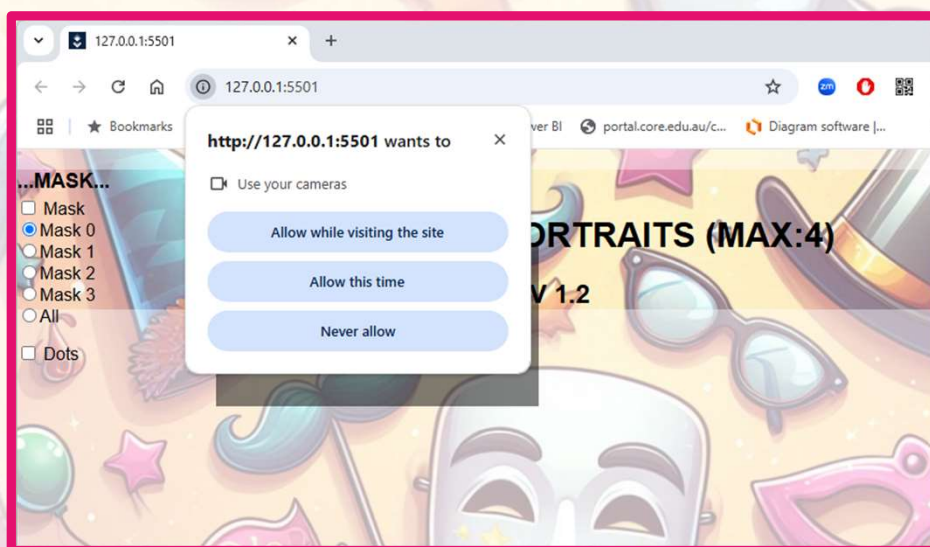
And now the Editor



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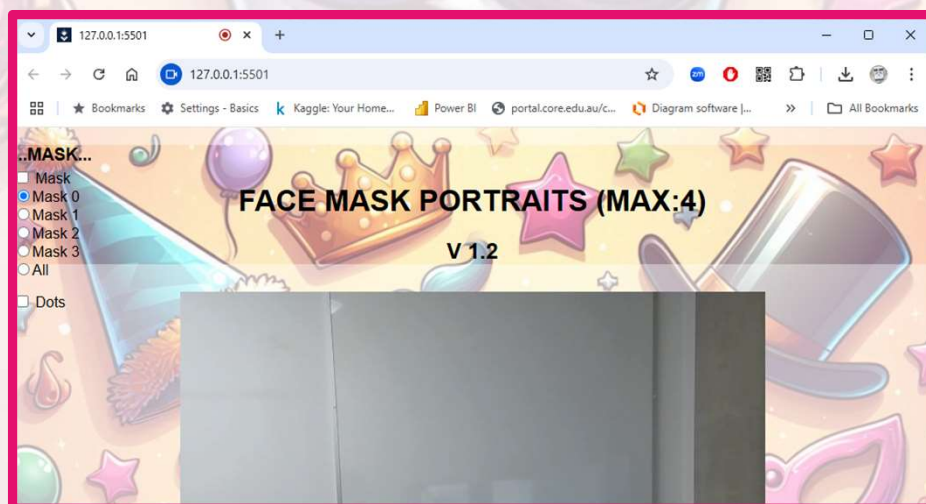
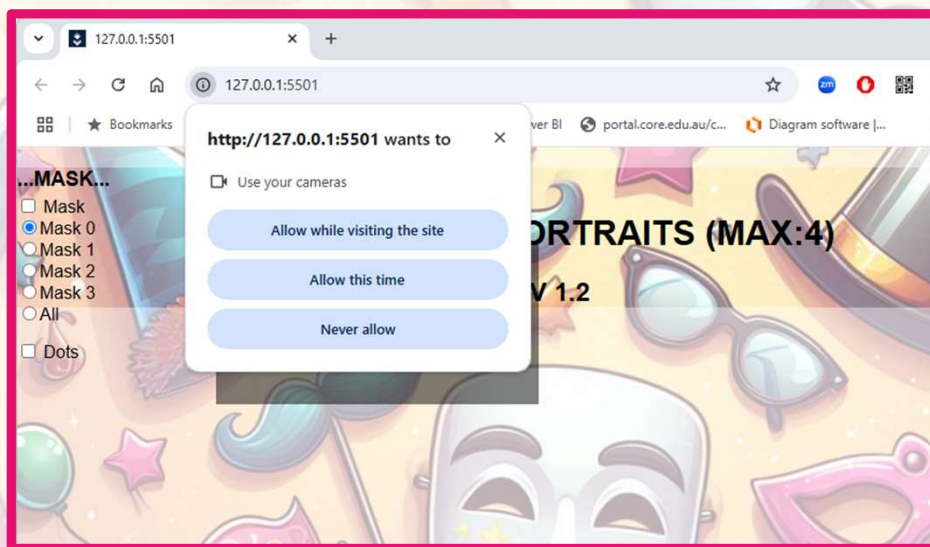
Now the Fun Begins!



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Using the application!

The webcam should now be in the application window, and you should be able to see yourself!



And Finally!



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On the **BSc Computer Science** Programme at the **University of Sunderland** you'll study AI and Machine Learning in more detail, which means you'll be able to create some amazing things and have a good grasp on this important emerging technology.

