USER GUIDE

Our application focuses on these three different steps :

1. Data collection: using just the image ID, we are able to get its relative 3D matrix.

2. Image Processing :

Dehaze → Sharpening → Color enhancement → final result

- Basic image processing: add more contrast, color contrast, stretching the histogram.

- Enhanced to highlight features, clouds, colors, and the beauty of Jupiter.

3. Image Recognition:

- Image segmentation.

- Recognition algorithm for detecting and classifying atmospheric features of Jupiter.

- Reconstruction of the Jupiter image.

Who Are We?

We are **THE GREAT RED SPOT**, we came to minimize time and energy for JunoCam raw image processing; via automating the process, giving user the opportunity to choose an automatic or a manual process, plus input choice, image ID or the image itself as well as providing other advanced services, for science, fun and artistic purposes.

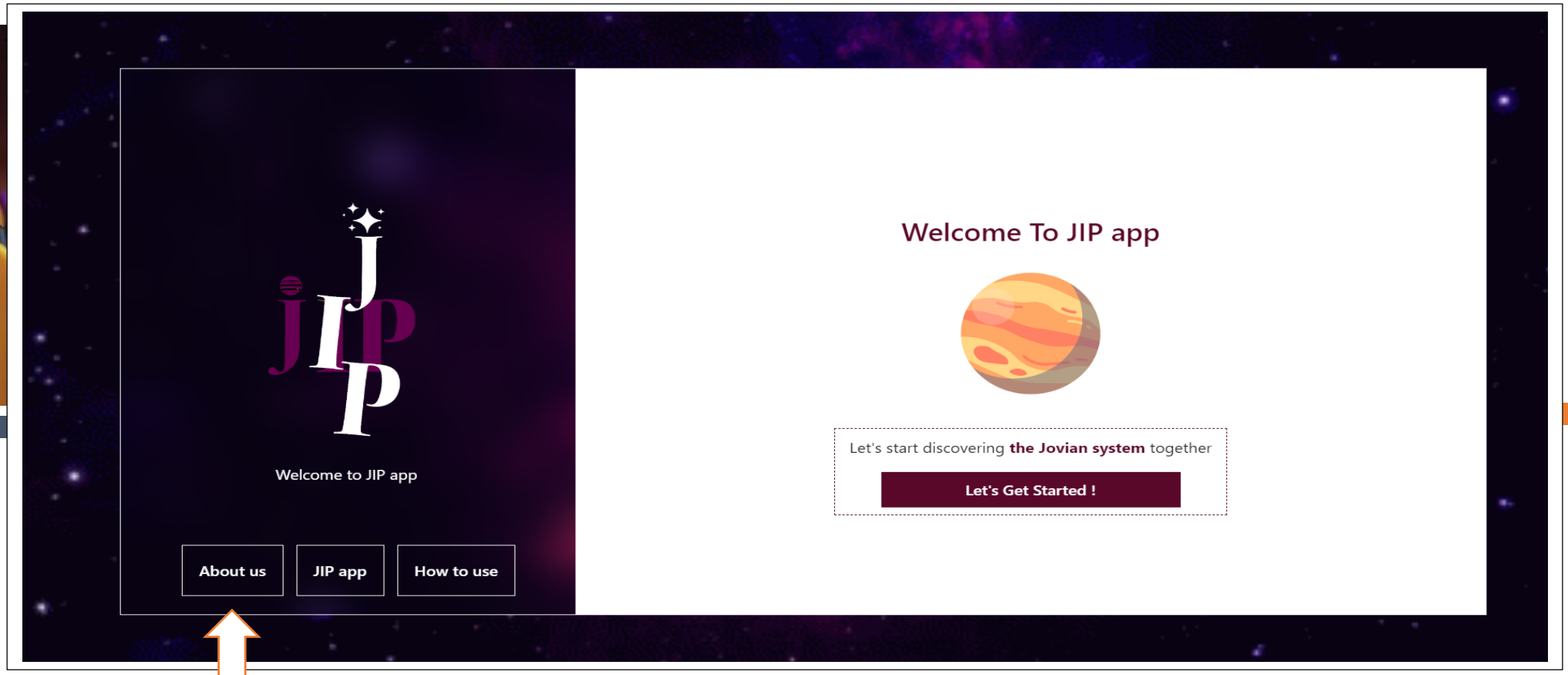
We do recommend you to use our app:

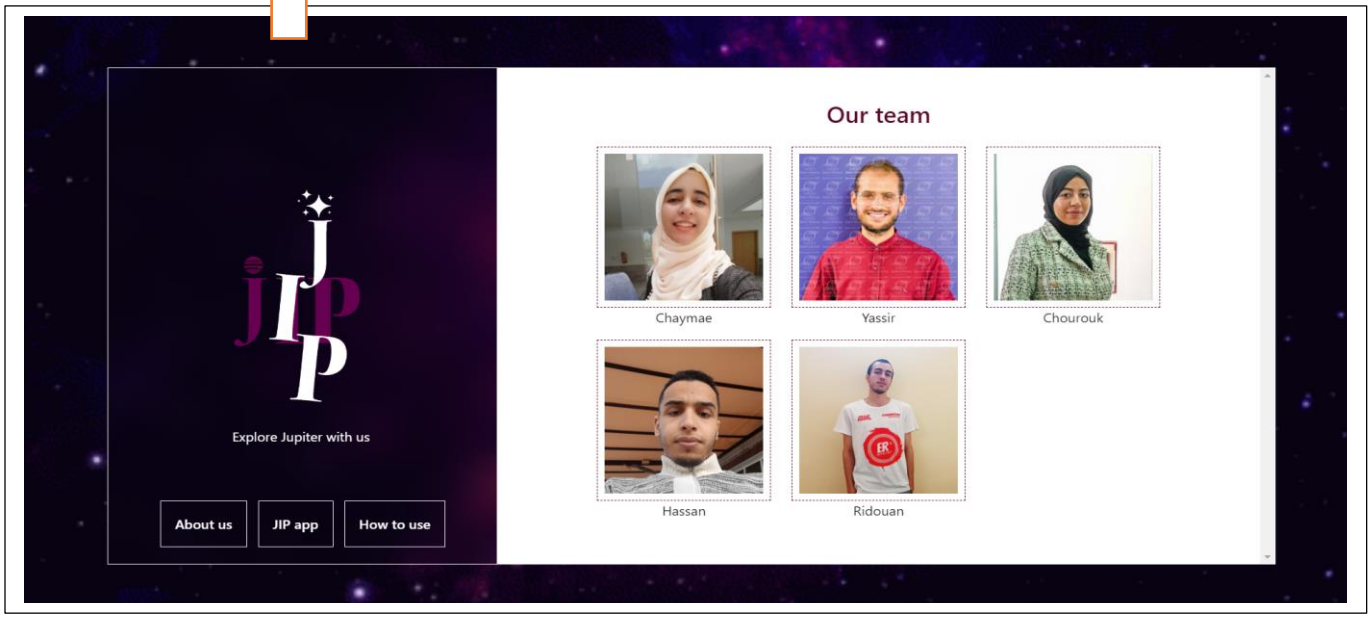
-It is much more time saving.

-It does not need manual processing unless you want to create an authentic image processing.

What are you waiting for to start your Juno discovery mission!

JIP: Juvian Image Processing





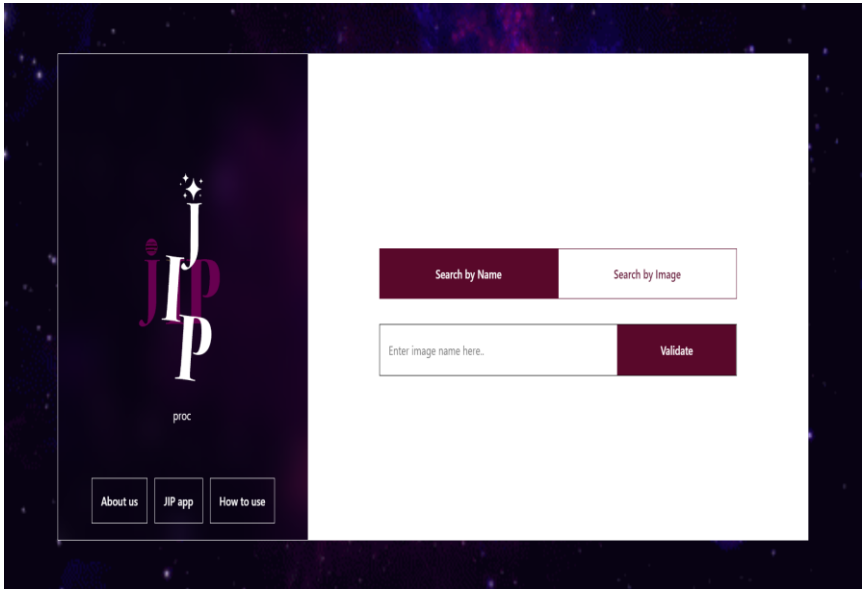
The first interface is for welcoming users, providing general information, with a choice to make; choose to search the name of the image to process, or enter the image directly.

JIP app

Jovian Image Processing, is a Web application coded with Python for Back-End and Angular for Front-End, to edit or process JunoCam raw images in order to display details and different zones. We have provided an automatic processing, as users might take the initiative for adding necessary corrections to make a concrete vision of their thoughts. It can also provide image recognition and planet reconstruction from Juno collected images. These features can serve for either science, fun or art purposes. JIP does directly download raw images from JunoCam Website.

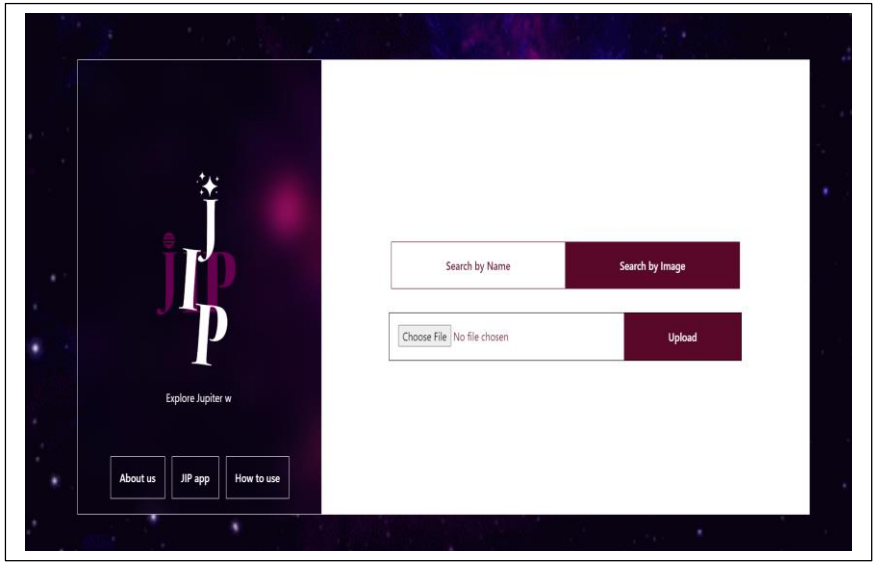
Let's start discovering **the Jovian system** together

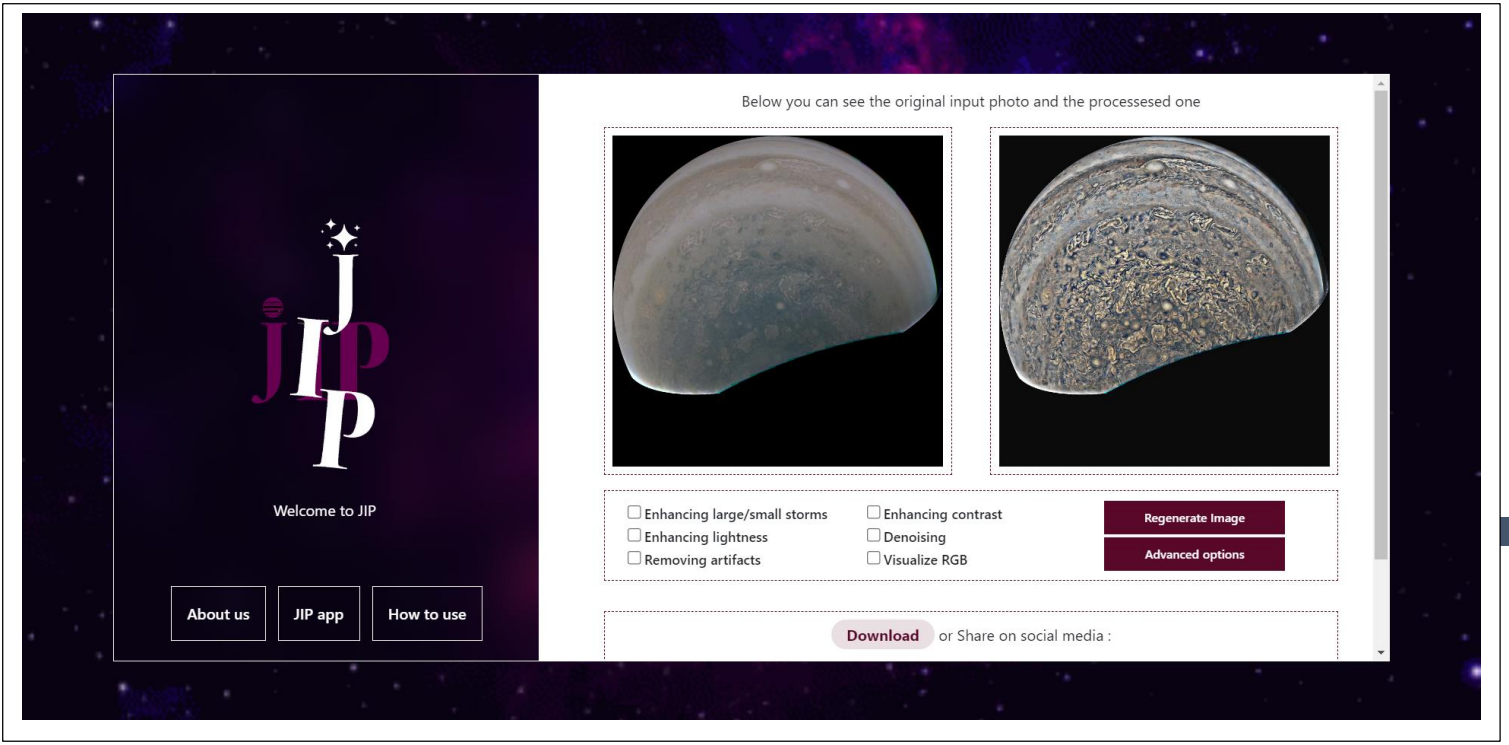
Let's Get Started !



How to use

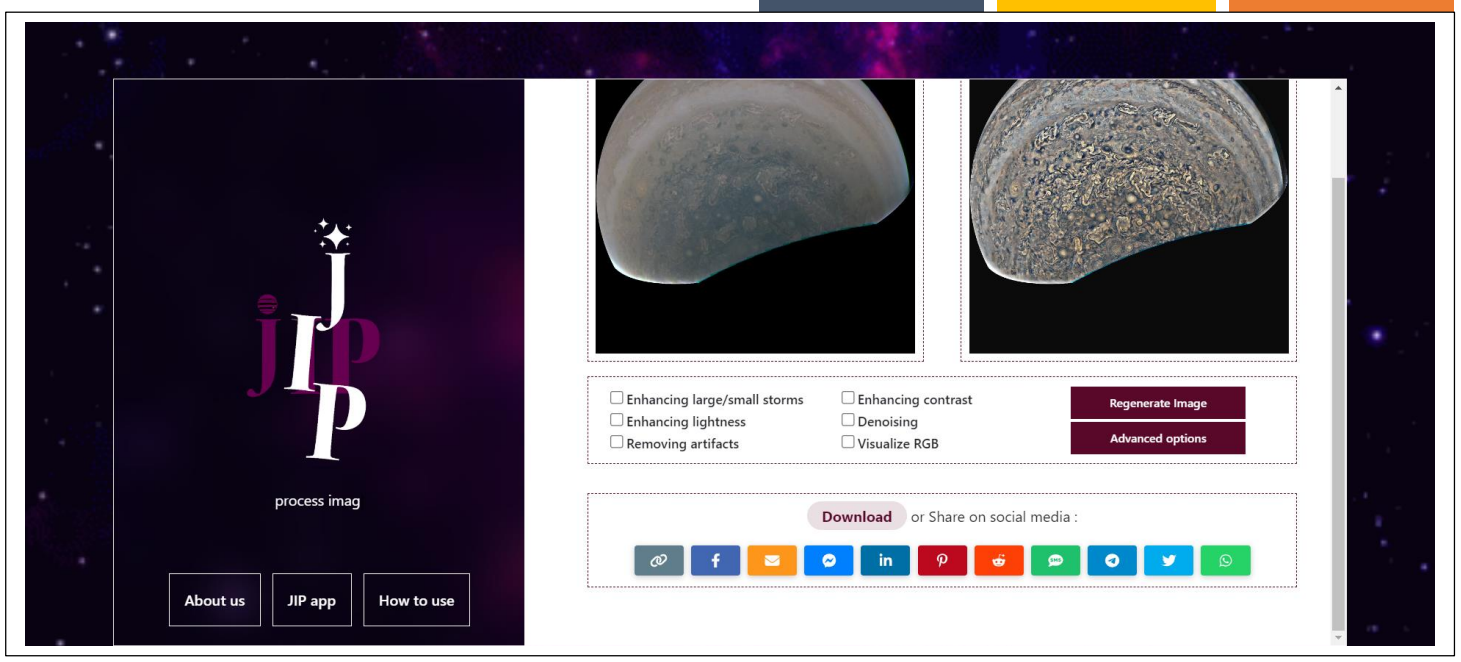
The 'How to use' is the section responsible of generating this manual



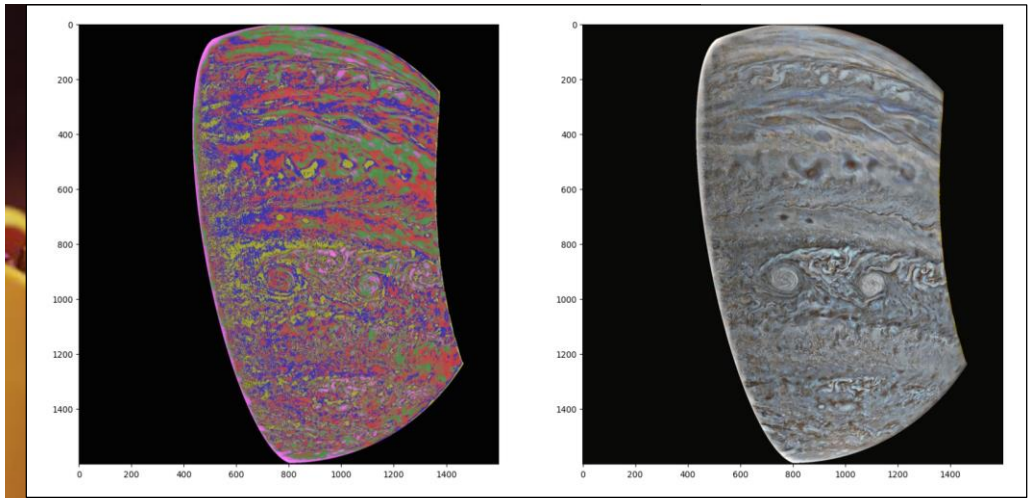


The second interface is dedicated to technical purposes of image processing; either manually by allowing the user to process the image, or automatically via application implemented tools.

For RGB visualization, the user needs to combine, Red, Green and Blue with a map image after, processing them individually to get the processed image.



The user can also compare before and after process, download results or share them online.



The third interface is dedicated to advanced operations or options, such as reconstruction, image recognition and segmentation.