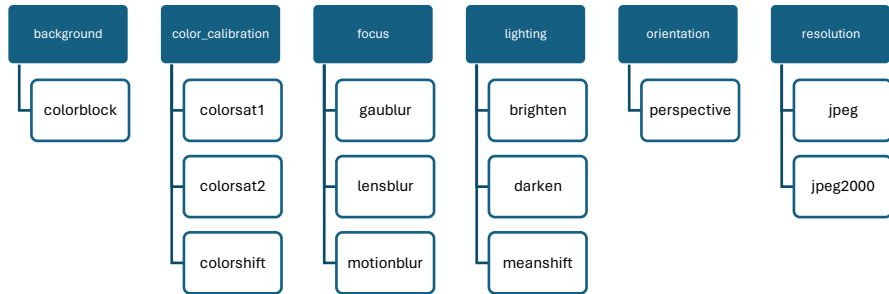


Bachelor Thesis Update [18.04.2024]	
<b>Progress overview</b>	<ul style="list-style-type: none"> <li>- Collected 410 good quality images from SCIN dataset.</li> <li>- From the 7 quality criteria I distorted the good quality images the following way. (One criteria is missing [field of view] where the goal is to center the lesion or area of interest.)</li> </ul>  <pre> graph TD     background[background] --- colorblock[colorblock]     color_calibration[color_calibration] --- colorsat1[colorsat1]     color_calibration --- colorsat2[colorsat2]     color_calibration --- colorshift[colorshift]     focus[focus] --- gaubblur[gaubblur]     focus --- lensblur[lensblur]     focus --- motionblur[motionblur]     lighting[lighting] --- brighten[brighten]     lighting --- darken[darken]     lighting --- meanshift[meanshift]     orientation[orientation] --- perspective[perspective]     resolution[resolution] --- jpeg[jpeg]     resolution --- jpeg2000[jpeg2000]   </pre> <ul style="list-style-type: none"> <li>- Update report.</li> </ul>
<b>Accomplishments</b>	<ul style="list-style-type: none"> <li>- Collected good quality images.</li> <li>- Created distortions according to the imaging standardization from ISIC.</li> </ul>
<b>Challenges</b> ○ [Planned measures]	<ul style="list-style-type: none"> <li>- Background and orientation distortions are difficult to synthetically reproduce. [I decided to use “colorblock” for background distortion where randomly blocks are placed in the image to add artifacts. The idea behind this is to distract the model from the skin lesion.] [For orientation distortion I decided to change the perspective of the image, so I get different angles from the image. It is like tilting the image.]</li> <li>- Field of view distortion is challenging to synthetically reproduce for FR IQA. [I could crop (upper right corner) from the images and the crops should then have the skin lesion at the down left corner, but I am unsure if this is a valid idea.]</li> </ul>
<b>Next steps</b>	<ul style="list-style-type: none"> <li>- Train and evaluate FR IQA</li> <li>- Update report.</li> </ul>
<b>Discussion points</b>	<ul style="list-style-type: none"> <li>- Is changing perspective considered more as orientation distortion or field of view distortion?</li> <li>- Also, when I tried flipping the image or rotating, I did not find the distortion satisfying for orientation distortion.</li> </ul>
<b>Additional Notes</b>	<ul style="list-style-type: none"> <li>- I was not able to download the Diverse Dermatology Images (DDI) because the website where I could access the dataset does not load for me. <a href="https://stanfordaimi.azurewebsites.net/datasets/35866158-8196-48d8-87bf-50dca81df965">https://stanfordaimi.azurewebsites.net/datasets/35866158-8196-48d8-87bf-50dca81df965</a></li> </ul>
<b>Next meeting</b>	- 3. May 2024
<b>Attachments</b>	-