

Development of a Customized Lora: A Deep Dive into Personalized AI-Generated Imagery

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Goal

My goal with creating a Lora was to create a professional photo of myself. There is an existing AI tool out there that does this but costs money. The tool is called Aragon, <https://www.aragon.ai/>. Aragon was my inspiration for creating a Lora.

Methodology:

The project commenced with the assembly of an image dataset. I attempted this process twice. The first dataset was very similar to each other whereas the second dataset was more diverse. The SD and SDXL Lora was trained utilizing Kohya's comprehensive framework, a decision influenced by its robustness and adaptability in handling sophisticated AI models.

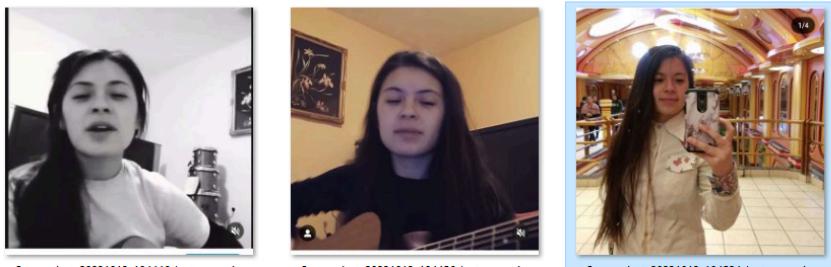
Challenges and Results:

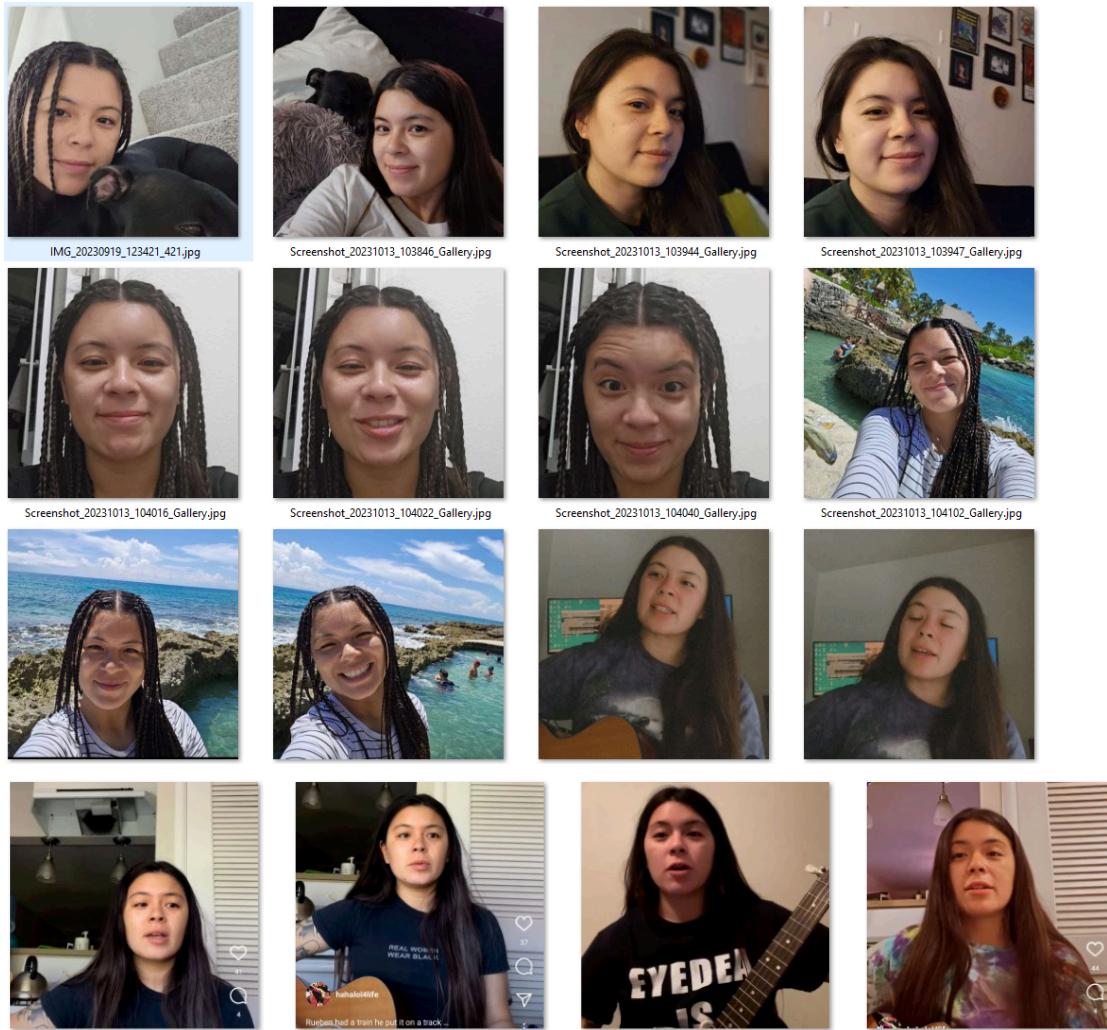
Despite the anticipation of superior image quality from the XL Lora, the initial results were underwhelming, with the output images marred by pixelation and blurriness. This was a significant setback, considering the elevated expectations associated with the XL variant. Adjusting the sampler settings to their upper limits yielded improvement, albeit not to the desired extent. However, a noteworthy success was the model's ability to generate images that retained my distinct facial features and hairstyle, demonstrating the model's capability to learn and replicate key personal attributes.

(2nd attempt) Training SDXL Lora using Kohya

https://github.com/bmaltais/kohya_ss

Image Dataset





Result:

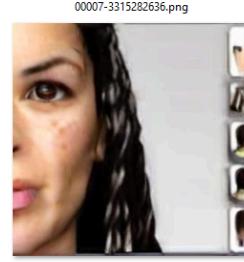
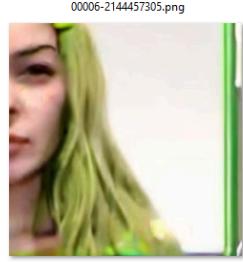
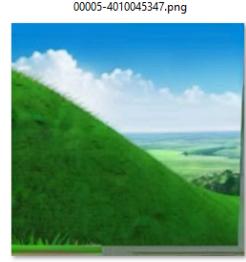
I made an XL lora. I wasn't happy with the result because the quality of the images were bad. They were pixelated, blurry even though I made an XL lora. I thought the quality would be significantly better. I had to put the sampler all the way up to get a photo with this quality:

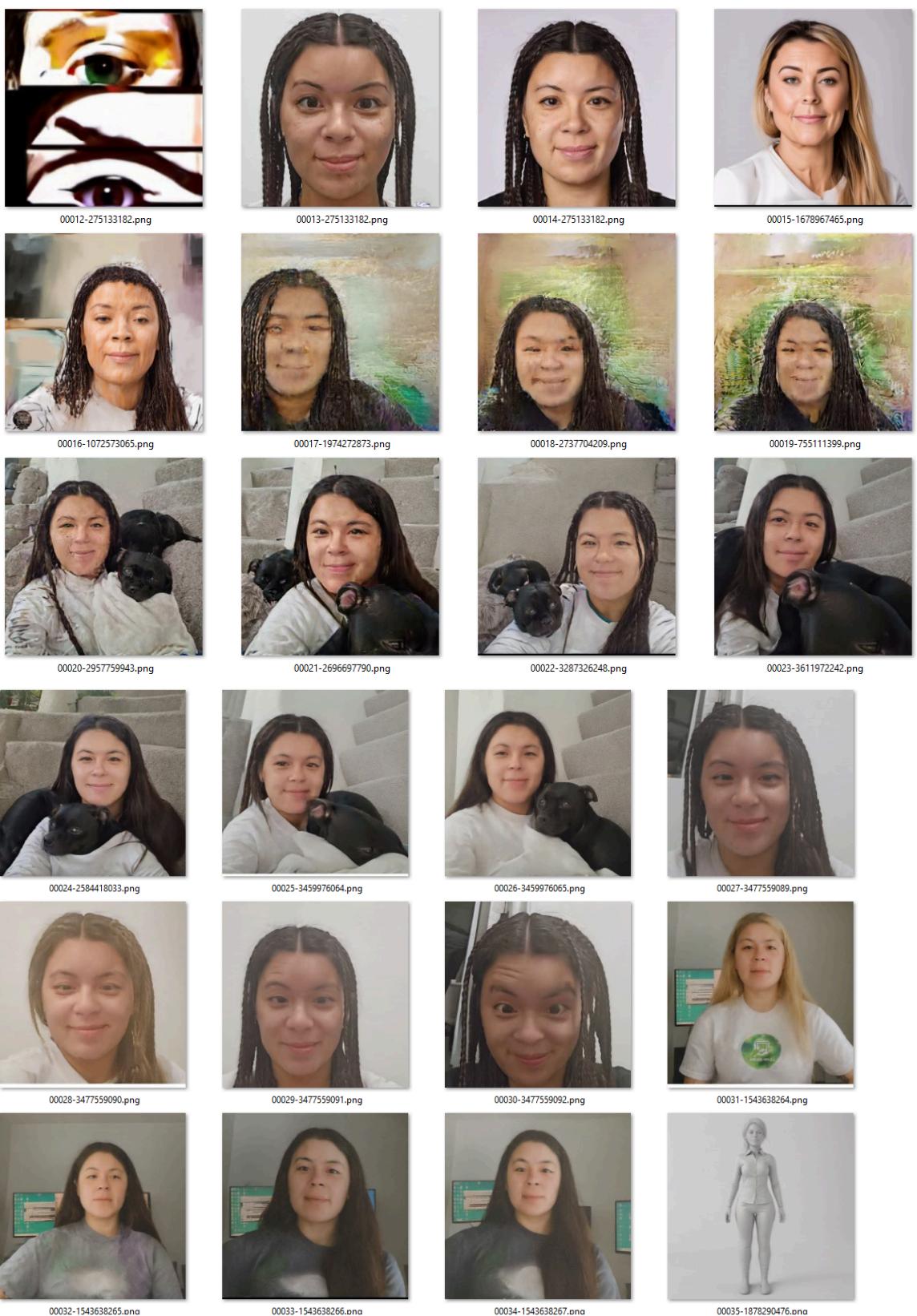


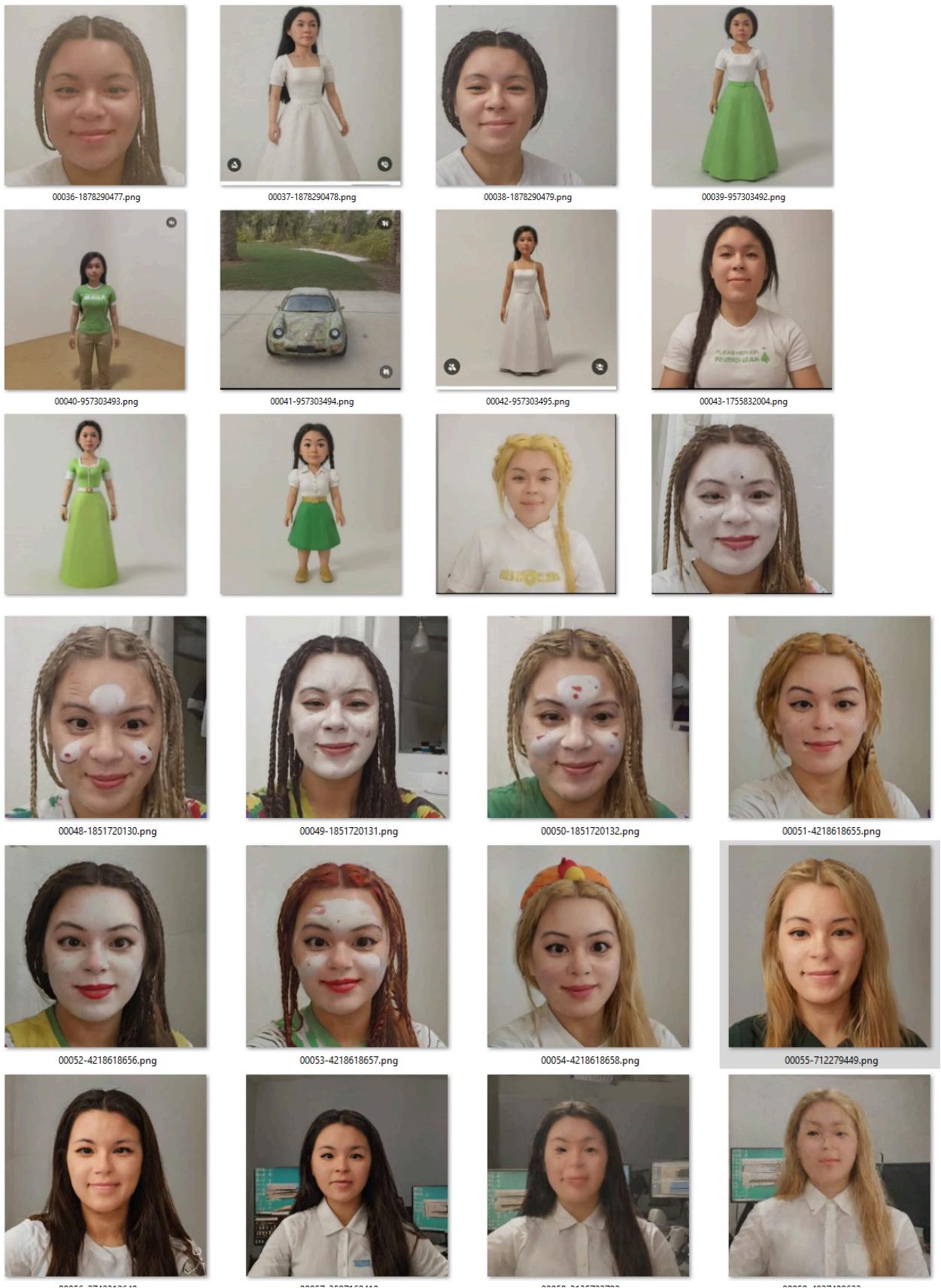
Otherwise, I would get something with this quality with the sampler at ~ 25:



One thing that I did like about the images was that it created various pictures of me that looked similar to me. It did a good job at generating images that had my facial features and hair that I trained with. Below you can see all of the images I generated:

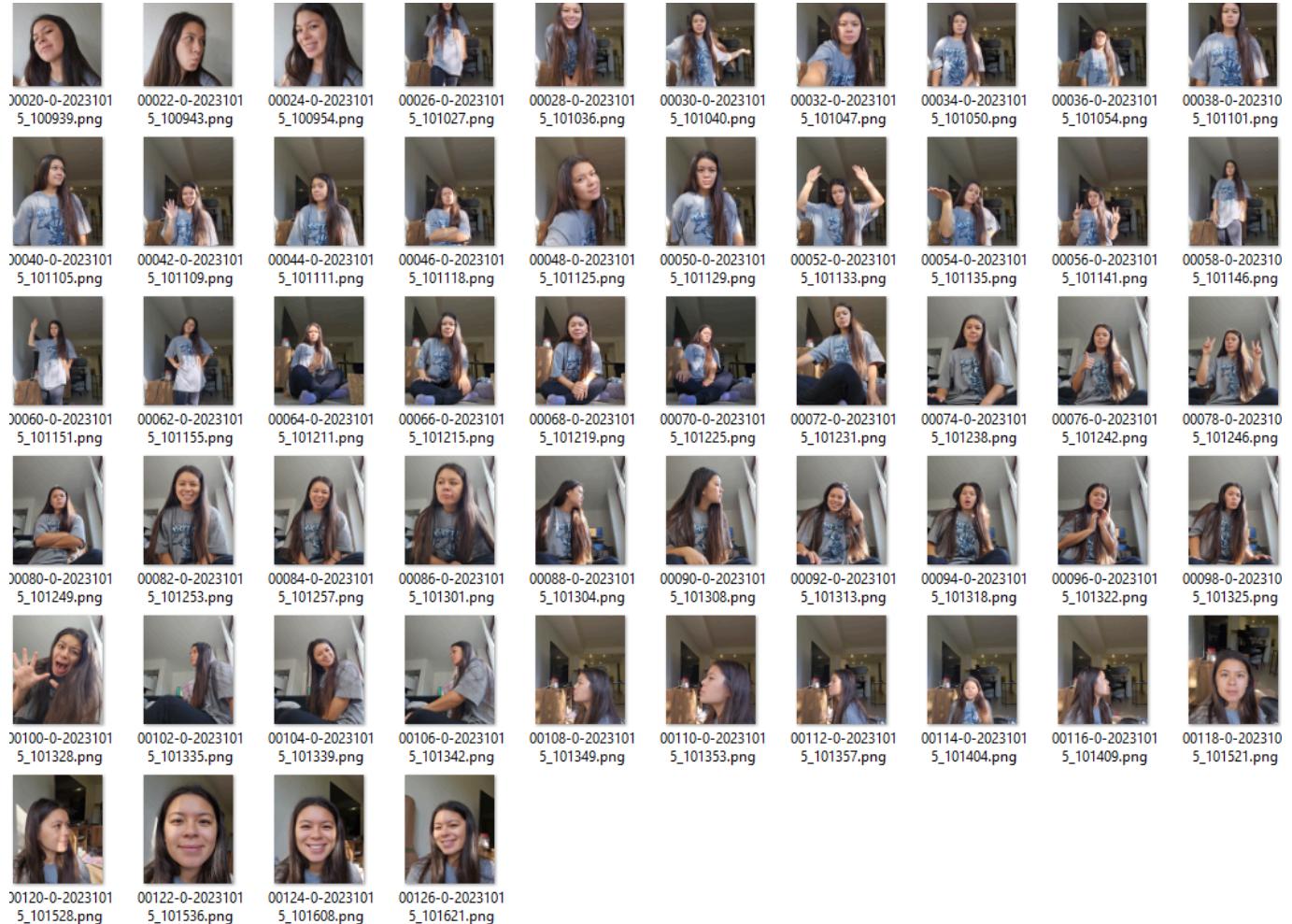






(1st attempt) Training SD Lora using Kohya

Image Dataset



Result

What I didn't like about the result is that it mainly generated variations of my image dataset. I was hoping it would be able to create various facial expressions, backgrounds and clothes but it had a hard time with that. When providing an image dataset, it is important to provide various backgrounds and clothes in addition to various facial expressions.



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00002-3953302400.png



00003-3853402685.png



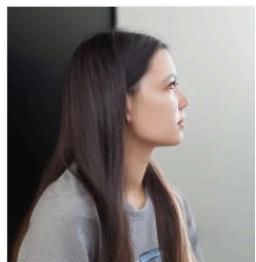
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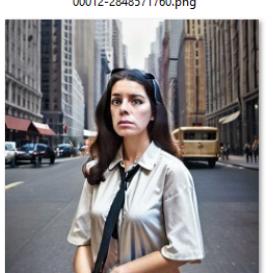
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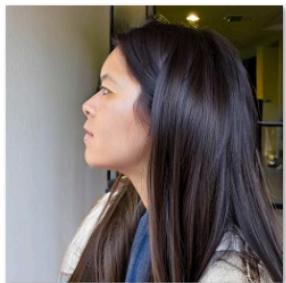


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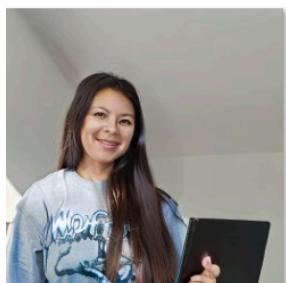
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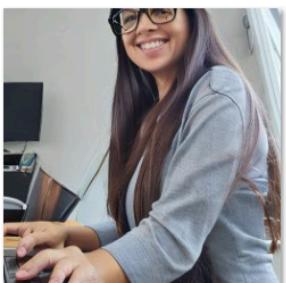
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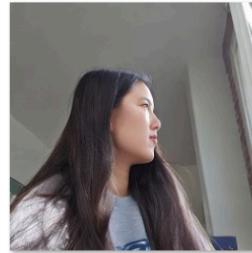
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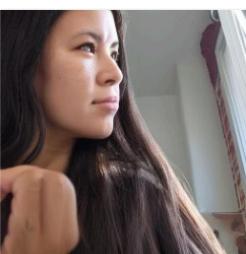
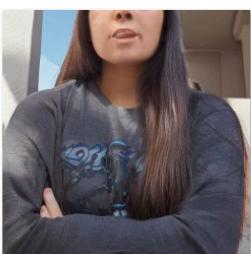
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