

ABSTRACT

AUTOMATED IMAGE SYNTHESIS USING A COMB NEURAL NETWORK ARCHITECTURE

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An image synthesis system includes a computing platform having a hardware processor and a system memory storing a software code including a neural encoder and multiple neural decoders each corresponding to a respective persona. The hardware processor executes the software code to receive target image data, and
10 source data that identifies one of the personas, and to map the target image data to its latent space representation using the neural encoder. The software code further identifies one of the neural decoders for decoding the latent space representation of the target image data based on the persona identified by the source data, uses the identified neural decoder to decode the latent space representation of the target image
15 data as the persona identified by the source data to produce a swapped image data, and blends the swapped image data with the target image data to produce one or more synthesized images.

Fig. 4