

Research on Building K-Contents Specialized Text2Image Pipeline

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Abstract— Recently, there has been a lot of research on the Text2Image generative model as social and technological interest in generative models has increased. In addition, the interest in Korean contents (K-Contents) has increased. In this paper, we propose “K-Contents Specialized Text2Image Pipeline”. “K-Contents Specialized Text2Image Pipeline” is specialized for understanding Korean prompts and aims to generate images specialized for various K-Contents. To build the pipeline, we collect and preprocess text and image data. Then, we train the Korean Text Encoder on the text data and train three specialized K-Contents generation pipelines on the image data. We also propose to use the SDXL model’s Img2Img Refiner with the SD model for time-efficient image generation. After that, we use the learned pipelines to generate real images and analyze their performance. Finally, we discuss the utilization of the above pipelines, limitations, and future research.

Keyword— Image Generation, Stable Diffusion, K-Contents, Korean text



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