

Stable Diffusion using Deep Learning

Sumit Kumar¹, Tushar Rode², Kunal³, Prof. B.R.Ban⁴, Dr. M. P. Wankhade⁵

Students, Department of Computer Engineering^{1,2}

Assistant Professor, Department of Computer Engineering³

HOD, Department of Computer Engineering⁴

Sinhgad College of Engineering, Pune , India

Abstract: *This research paper explores the field of text-to- image and image-to-image generation, leveraging the power of deep learning techniques. Text-to-image generation involves creating visual content from textual descriptions, while image-to- image generation focuses on transforming images from one style or domain to another*

Keywords: Deep Learning

REFERENCES

- [1]. "Stable Diffusion Repository on GitHub". CompVis - Machine Vision and Learning Research Group, LMU Munich. 17 September 2022.
- [2]. RunwayML. "stable-diffusion-v1-5". Hugging Face.
- [3]. "Diffuse The Rest - a Hugging Face Space by huggingface". huggingface.co. Archived from the original on 2022-09-05.
- [4]. Rombach; Blattmann; Lorenz; Esser; Ommer (June 2022). High-Resolution Image Synthesis with Latent Diffusion Models (PDF). International Conference on Computer Vision and Pattern Recognition (CVPR). New Orleans, LA. pp. 10684– 10695. arXiv:2112.10752.
- [5]. "Stable Diffusion Launch Announcement". Stability.Ai. Archived from the original on 2022-09-05.
- [6]. "Revolutionizing image generation by AI: Turning text into images". LMU Munich.
- [7]. Wiggers, Kyle (17 October 2022). "Stability AI, the startup behind Stable Diffusion, raises \$101M". Techcrunch.
- [8]. Stable Diffusion, CompVis - Machine Vision and Learning LMU Munich, 2022-11-04.
- [9]. "The new killer app: Creating AI art will absolutely crush yourPC". PCWorld. Archived from the original on 2022-08-31.