

Applications and Conclusion

Part 7/7: Applications and Extensions



Text-to-Image

Popular

DALL-E 2, Stable Diffusion, Midjourney, Imagen



Image Editing

Inpainting, outpainting, style transfer



Video Generation

Temporal diffusion models



3D Generation

NeRF + diffusion (DreamFusion)



Audio Synthesis

Diffusion for music and speech generation



Molecular Design

Drug discovery and protein design



Medical Imaging

Denoising, reconstruction, synthesis



Future Directions



Real-time
Generation



Better
Control



Improved
Efficiency