## **50 Common Deep Learning-Related Algorithms**

These 50 common deep learning-related algorithms and models cover various aspects of the deep learning field, including image processing, natural language processing, and reinforcement learning. Depending on specific tasks and requirements, you can choose the appropriate algorithms and models to solve your problems.

- 1. Multi-Layer Perceptron (MLP)
- 2. Convolutional Neural Networks (CNN)
- 3. Recurrent Neural Networks (RNN)
- 4. Long Short-Term Memory (LSTM)
- 5. Gated Recurrent Unit (GRU)
- 6. Autoencoders
- 7. Generative Adversarial Networks (GAN)
- 8. Variational Autoencoders (VAE)
- 9. Siamese Networks
- 10. Deep Belief Networks (DBN)
- 11. Convolutional Autoencoders
- 12. Generative Adversarial Networks (GAN)
- 13. Recurrent GAN (R-GAN)
- 14. Conditional GAN (cGAN)
- 15. Adversarial Autoencoder (AAE)
- 16. Style Transfer Networks
- 17. Attention Mechanism
- 18. Deep Reinforcement Learning
- 19. Deep Q-Network (DQN)
- 20. Markov Decision Process (MDP)
- 21. Markov Chain Monte Carlo (MCMC)
- 22. Bidirectional Recurrent Neural Networks
- 23. Self-Attention Model
- 24. Semi-Supervised Learning
- 25. Transfer Learning
- 26. Adversarial Transfer Learning
- 27. Deep Residual Networks (ResNet)
- 28. Dilated Convolutional Neural Networks
- 29. Variational Autoencoders (VAE)
- 30. Training Deep Neural Networks
- 31. Graph Neural Networks (GNN)
- 32. Self-Supervised Learning
- 33. Self-Supervised Representation Learning
- 34. Reinforcement Learning with Policy Gradients
- 35. Pretrained Language Models
- 36. Deep Generative Models
- 37. Neural Graph Networks
- 38. Generative Adversarial Networks (GAN)
- 39. Neural Machine Translation (NMT)

- 40. Conversational AI
- 41. Reinforcement Learning Value Iteration
- 42. Graph Convolutional Networks (GCN)
- 43. Sparse Autoencoders
- 44. Evaluation of Generative Models
- 45. Image Segmentation Neural Networks
- 46. Deep Learning Models for Speech Recognition
- 47. Neural Object Detection
- 48. Deep Learning Models for Image Generation
- 49. Deep Learning Models for Image Classification
- 50. Deep Learning Models for Reinforcement Learning