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@misc{.13122023b,
 author = {{Rokas Vaivada}},
 year = {2023},
 title = {How Deep Learning is Revolutionizing the Gaming Industry | LinkedIn},
 url = {https://www.linkedin.com/pulse/how-deep-learning-revolutionizing-gaming-
industry-rokas-vaivada/},
 urldate = {13/12/2023},
 file = {Rokas Vaivada 2023 - How Deep Learning is
Revolutionizing:Attachments/Rokas Vaivada 2023 - How Deep Learning is
Revolutionizing.pdf:application/pdf}
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@misc{.15122023,
 year = {15/12/2023},
 title = {Euclidean distance - Wikipedia},
 url = {https://en.wikipedia.org/wiki/Euclidean distance},
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@misc{AndreyKurenkovsWebWorld.21062022,
 abstract = {The start of the story of how humanity made computers good at Go},
 author = {{Andrey Kurenkov's Web World}},
 editor = {{Andrey Kurenkov, Abigail See, Pavel Komarov}},
 year = {21/06/2022},
 title = {A 'Brief' History of Game AI Up To AlphaGo},
 url = {https://www.andreykurenkov.com/writing/ai/a-brief-history-of-game-ai/},
 urldate = {05/12/2023},
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@misc{BaeldungonComputerScience.2023,
 abstract = {An overview of reinforcement learning, including its definition and
purpose.},
 author = {{Baeldung on Computer Science}},
 year = {2023},
 title = {Q-Learning vs. Deep Q-Learning vs. Deep Q-Network | Baeldung on Computer
Science},
 url = {https://www.baeldung.com/cs/q-learning-vs-deep-q-learning-vs-deep-q-
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@article{FrancoisLavet.2018,
 abstract = {Deep reinforcement learning is the combination of reinforcement
learning (RL) and deep learning. This field of research has been able to solve a
wide range of complex decision-making tasks that were previously out of reach for a
machine. Thus, deep RL opens up many new applications in domains such as
healthcare, robotics, smart grids, finance, and many more. This manuscript provides
an introduction to deep reinforcement learning models, algorithms and techniques.
Particular focus is on the aspects related to generalization and how deep RL can be
used for practical applications. We assume the reader is familiar with basic

machine learning concepts.},
 author = {Fran{\c{c}}ois-Lavet, Vincent and Henderson, Peter and Islam, Riashat
and Bellemare, Marc G. and Pineau, Joelle},
 year = {2018},
 title = {An Introduction to Deep Reinforcement Learning},
 url = {https://arxiv.org/pdf/1811.12560.pdf},
 pages = {219--354},
 volume = {11},
 number = {3-4},
 issn = {1935-8237},
 journal = {Foundations and Trends{\circledR} in Machine Learning},
 doi = {10.1561/2200000071},
 file = {Fran{\c{c}}ois-Lavet, Henderson et al. 2018 - An Introduction to Deep
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}

@article{freeCodeCamp.org.10042018,
 abstract = {by Thomas Simonini

Diving deeper into Reinforcement Learning with Q-Learning

{\textgreater} This article is part of Deep Reinforcement Learning Course with
Tensorflow ?.

Check the syllabus here.

[https://simoninithomas.github.io/Deep{_}reinforcement{_}learning{_}Course/]

Today we'll learn about Q-Learning. Q-Learning is a value-based Reinforcement

Learning algorithm.

This article is the second part of a free series of blog post about Deep

Reinforcement Learning. For more information and more resources, check ou},
 author = {freeCodeCamp.org},
 year = {10/04/2018},
 title = {Diving deeper into Reinforcement Learning with Q-Learning},
 url = {https://www.freecodecamp.org/news/diving-deeper-into-reinforcement-
learning-with-q-learning-c18d0db58efe/},
 urldate = {05/12/2023},
 journal = {freeCodeCamp.org},
 file = {freeCodeCamp.org 10 04 2018 - Diving deeper into Reinforcement
Learning:Attachments/freeCodeCamp.org 10 04 2018 - Diving deeper into Reinforcement
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 author = {Goodfellow, Ian and Bengio, Yoshua and Courville, Aaron},
 year = {2016},
 title = {Deep learning},
 address = {Cambridge Massachusetts},
 publisher = {{The MIT Press}},
 isbn = {9780262035613},
 series = {Adaptive computation and machine learning}
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@misc{Sarkar.27022020,
 abstract = {Previous work explored blending levels from existing games to create levels for a new game that mixes properties of the original games. In this paper, we use Variational Autoencoders (VAEs) for improving upon such techniques. VAEs are artificial neural networks that learn and use latent representations of datasets to generate novel outputs. We train a VAE on level data from Super Mario Bros. and Kid Icarus, enabling it to capture the latent space spanning both games. We then use this space to generate level segments that combine properties of levels from both games. Moreover, by applying evolutionary search in the latent space, we evolve level segments satisfying specific constraints. We argue that these affordances make the VAE-based approach especially suitable for co-creative level design and compare its performance with similar generative models like the GAN and the VAE-GAN.},
 author = {Sarkar, Anurag and Yang, Zhihan and Cooper, Seth},
 date = {27/02/2020},
 title = {Controllable Level Blending between Games using Variational Autoencoders},
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 abstract = {This articles lists a complete timline of events in which artificial intelligence had made major progresses in playing games.},
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 year = {12/07/2019},
 title = {Timeline Of Games Mastered By Artificial Intelligence},
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 urldate = {13/12/2023},
 journal = {Analytics India Magazine}
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@article{Sciforce.12012022,
 abstract = {Generative Adversarial Networks (GANs) are constantly improving year over the year. In October 2021, NVIDIA presented a new model, StyleGAN3, that outperforms StyleGAN2 with its hierarchical$\ldots$},
 author = {Sciforce},
 year = {12/01/2022},
 title = {What's Next for GANs: Latest Techniques and Applications},
 url = {https://medium.com/sciforce/whats-next-for-gans-latest-techniques-and-applications-3be06a7e5ab9},
 urldate = {13/12/2023},
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@inproceedings{Shafi.2023,
 abstract = {Deep learning has promised us great outcomes when enough data are fed to it. Deep learning is a branch of artificial intelligence which employs artificial neural networks to learn. The quality of the performance of these ANNs

majorly depends on the data fed to it, architecture of the ANN and hyperparameters. The hyperparameters are the parameters whose values control the process of learning, which in turn controls the performance of ANNs. These hyperparameters are assigned different values usually using hit and trial methods. Hyperparameters such as learning rate, batch size, and epochs are assigned some values independent of each other before training the ANN model. In this study, we introduce a novel method of allowing the learning rate to be a function of batch size and epoch, thereby reducing the number of hyperparameters to be tuned. We later on introduce some randomness to the learning rate to see the effects on accuracy. It was found that the proposed strategy helped increase accuracy by more than 2{\%} in certain cases, when compared to the existing methods.},
 author = {Shafi, Sadaf and Assad, Assif},
 title = {Exploring the Relationship Between Learning Rate, Batch Size, and Epochs in Deep Learning: An Experimental Study},
 pages = {201--209},
 publisher = {{Springer Nature Singapore}},
 isbn = {978-981-19-6525-8},
 editor = {Thakur, Manoj and Agnihotri, Samar and Rajpurohit, Bharat Singh and Pant, Millie and Deep, Kusum and Nagar, Atulya K.},
 booktitle = {Soft Computing for Problem Solving},
 year = {2023},
 address = {Singapore}
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 year = {2023},
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 editor = {Thakur, Manoj and Agnihotri, Samar and Rajpurohit, Bharat Singh and Pant, Millie and Deep, Kusum and Nagar, Atulya K.}
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 abstract = {In this Python Reinforcement Learning course you will learn how to teach an AI to play Snake! We build everything from scratch using Pygame and PyTorch. Co...},
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 year = {2022},
 title = {Python + PyTorch + Pygame Reinforcement Learning -- Train an AI to Play Snake},
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 urldate = {13/12/2023}
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 author = {Zambra, Matteo and Testolin, Alberto and Zorzi, Marco},
 year = {2023},
 title = {A Developmental Approach for Training Deep Belief Networks},
 pages = {103--120},
 volume = {15},
 number = {1},
 issn = {1866-9956},
 journal = {Cognitive Computation},
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Training:Attachments/Zambra, Testolin et al. 2023 - A Developmental Approach for
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 author = {Zhang, Aston},
 year = {2023},
 title = {Dive into deep learning},
 address = {Cambridge, UK},
 publisher = {{Cambridge University Press}},
 isbn = {9781009389433}
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