

[Cluster Analysis](#) [Artificial Neural Networks](#) [Deep Learning](#) [Artificial Intelligence](#)

[Machine Learning](#) [How-to Question](#)

How can I use a neural network for clustering analysis?

Ad by Superorder

New trading terminal allows to automate your trading.

Drag-and-drop strategy builder, hidden and trailing orders trading view charts and more. 14 days free.

Sign up at superorder.io

4 Answers



John Fisher, software engineer, youtuber

Answered Jul 25 2018 · Author has **84** answers and **52.1k** answer views

An autoencoder combined with a traditional clustering algorithm such as K-Means would be an option.

An autoencoder is an encoder-decoder neural network.

The encoder takes an N-dimensional input vector and compresses that input vector into a lower dimensional vector. The decoder attempts to best reconstruct the initial input, receiving that compressed lower dimensional vector as input. As the encoder and decoder are trained end to end, the encoder learns better representations of the features in the input vector, which can then be extracted.

A clustering algorithm can then be applied to the dataset of compressed representations, possibly revealing some insights that may not have been observable clustering the raw data itself.

Related Questions

[How can clustering be performed using neural networks?](#)

[What type of neural network should I use for data clustering?](#)

[How would one build "supervised clustering" for neural networks?](#)

[How do I create a specific neural network structure using MATLAB's neural network toolbox?](#)

[How do I use Neural Network?](#)

[What applications of fractal analysis can be in neural networks?](#)

Sponsored

Open your Exness account now.

Looking for a forex broker you can trust?
Exness is what you've been looking for! Join us!

[Learn more at exness.com](https://exness.com)

Related Questions

[How can clustering be performed using neural networks?](#)

[What type of neural network should I use for data clustering?](#)

[How would one build "supervised clustering" for neural networks?](#)

[How do I create a specific neural network structure using MATLAB's neural network toolbox?](#)

[How do I use Neural Network?](#)

[What applications of fractal analysis can be in neural networks?](#)

Sponsored

Open your Exness account now.

Looking for a forex broker you can trust?
Exness is what you've been looking for! Join us!

[Learn more at exness.com](#)

3.2k Views · View 4 Upvoters

Related Questions

[More Answers Below](#)

[How can clustering be performed using neural networks?](#)

[What type of neural network should I use for data clustering?](#)

[How would one build "supervised clustering" for neural networks?](#)

[How do I create a specific neural network structure using MATLAB's neural network toolbox?](#)

[How do I use Neural Network?](#)



Shawn Farris, Data Scientist/Mathematician

Answered Jun 9, 2018

In doing unsupervised learning with neural networks, I first choice for me would be [autoencoders](#) . You can think of autoencoders as a generalization of PCA, in which you can learn both higher and lower dimensional, non-linear representations of your

visualize this representation with either PCA or tSNE. Further, you can use your usual clustering algorithms (such as kMeans), which should perform better on your now lower-dimensional feature set.

2.1k Views

Promoted by DuckDuckGo

Why should I use DuckDuckGo instead of Google?



Gabriel Weinberg, CEO & Founder at DuckDuckGo.com (2008-present)

Updated Oct 8, 2018

#1 — Google tracks you. We don't. You share your most intimate secrets with your search engine without even thinking: medical, financial and personal issues, along with all the day to day things that make you, well, you. All of that personal information should be private, but on Google i... [\(Continue Reading\)](#)



Babita koundal

Answered May 2, 2018

Clustering is the function of supervised and unsupervised type of learning that is part of [Artificial Neural Network](#) . It is the base of data analysis, forecasting, making decision, designing and problem finding applications for neural networks.

1.9k Views



Rollin Omari, PhD student studying cognition and AGI/ASI

Answered May 30, 2015 · Author has **117** answers and **152k** answer views

The following paper should help: [Cluster Analysis and Neural Network](#)

They did their work in Matlab and they also have source code available.

Or you can use the Neural Network tool in Matlab: [Cluster Data with a Self-Organizing Map](#)

9.5k Views · View 6 Upvoters

Related Questions

[How can clustering be performed using neural networks?](#)

[What type of neural network should I use for data clustering?](#)

[How would one build "supervised clustering" for neural networks?](#)

[How do I create a specific neural network structure using MATLAB's neural network toolbox?](#)

[How do I use Neural Network?](#)

[What applications of fractal analysis can be in neural networks?](#)

Sponsored

Open your Exness account now.

Looking for a forex broker you can trust?
Exness is what you've been looking for! Join us!

[Learn more at exness.com](#)

Related Questions

What applications of fractal analysis can be in neural networks?

How do I train a neural network for sentiment analysis?

How is softmax used in neural networks?

Which clustering algorithm is best suitable for social network analysis?

What is the best way of using a recurrent neural network for time series analysis?

How do I use SVM in deep neural networks?

How can agglomerative clustering be done using deep learning, LSTM, GRU or artificial neural networks?

To what extent has functional analysis been used in understanding neural networks?

Why use K-means clustering when there are neural networks?

What is the use of neural networks?

When can we use Neural Networks?

In Tensorflow: what kind of neural network should I use?

How useful is using unsupervised online neural network for malware behavior analysis?

How are neural networks used in robotics?

What is artificial neural networks?

Related Questions

How can clustering be performed using neural networks?

What type of neural network should I use for data clustering?

How would one build "supervised clustering" for neural networks?

How do I create a specific neural network structure using MATLAB's neural network toolbox?

How do I use Neural Network?

What applications of fractal analysis can be in neural networks?

Sponsored

Open your Exness account now.

Looking for a forex broker you can trust?
Exness is what you've been looking for! Join us!

[Learn more at exness.com](https://exness.com)