# Neural Networks By Satish Kumar Class Approach

**#neural networks #deep learning #artificial intelligence #Satish Kumar #machine learning concepts**

Explore the foundational principles of Neural Networks through a comprehensive class approach by Satish Kumar. This resource provides clear explanations and practical insights into deep learning and artificial intelligence, making complex concepts accessible for students and practitioners alike.



Neural Networks By Satish Kumar Class Approach

Neural Networks A Classroom Approach By Satish Kumar Pdf
Banksy original signature
Art Banksy Tunnel 2008
Neural Network In 5 Minutes | What Is A Neural Network? | How Neural Networks Work | Simplilearn - Neural Network In 5 Minutes | What Is A Neural Network? | How Neural Networks Work | Simplilearn by Simplilearn 1,273,405 views 4 years ago 5 minutes, 45 seconds - This video on What is a Neural Networkdelivers an entertaining and exciting introduction to the concepts of **Neural Network**,.
Artificial Intelligence Class 9 Unit 3 | Neural Networks - Introduction - Artificial Intelligence Class 9 Unit 3 | Neural Networks - Introduction by Magnet Brains 111,435 views 2 years ago 14 minutes, 45 seconds - **Class**,: 9th Subject: Artificial Intelligence Chapter: **Neural Networks**, Unit 3 Topic Name: **Neural Networks**, ...
12a: Neural Nets - 12a: Neural Nets by MIT OpenCourseWare 520,158 views 7 years ago 50 minutes - In this video, Prof. Winston introduces **neural nets**, and back propagation. License: Creative Commons BY-NC-SA More ...
Neuron
Binary Input
Axonal Bifurcation
A Neural Net Is a Function Approximator
Performance Function
Hill-Climbing
Follow the Gradient
Sigmoid Function
The World's Simplest Neural Net
Simplest Neuron
Partial Derivatives
Demonstration
Reuse Principle
Lecture 11 - Introduction to Neural Networks | Stanford CS229: Machine Learning (Autumn 2018) -

Lecture 11 - Introduction to Neural Networks | Stanford CS229: Machine Learning (Autumn 2018) by Stanford Online 141,172 views 3 years ago 1 hour, 20 minutes - Kian Katanforoosh Lecturer, Computer Science To follow along with the course schedule and syllabus, visit: ...
Deep Learning
Logistic Regression
Sigmoid Function
Logistic Loss
Gradient Descent Algorithm
Implementation
Model Equals Architecture plus Parameters
Softmax Multi-Class Network
Using Directly Regression To Predict an Age
The Rayleigh Function
Vocabulary
Hidden Layer
House Prediction
Blackbox Models
End To End Learning
Difference between Stochastic Gradient Descent and Gradient Descent
Algebraic Problem
Decide How Many Neurons per Layer
Cost Function
Batch Gradient Descent
Backward Propagation
Neural Network Simply Explained | Deep Learning Tutorial 4 (Tensorflow2.0, Keras & Python) - Neural Network Simply Explained | Deep Learning Tutorial 4 (Tensorflow2.0, Keras & Python) by codebasics 340,142 views 3 years ago 11 minutes, 1 second - What is a **neural network**,?: Very simple explanation of a **neural network**, using an analogy that even a high school student can ...
Backward Error Propagation
The Motivation behind Neural Networks
Error Loop
Intro to Machine Learning & Neural Networks. How Do They Work? - Intro to Machine Learning & Neural Networks. How Do They Work? by Math and Science 125,956 views 1 year ago 1 hour, 42 minutes - In this lesson, we will discuss machine learning and **neural networks**,. We will learn about the overall topic of artificial intelligence ...
Introduction
Applications of Machine Learning
Difference Between AI, ML, & NNs
NNs Inspired by the Brain
What is a Model?
Training Methods
Neural Network Architecture
Input and Output Layers
Neuron Connections
Review of Functions
Neuron Weights and Biases
Writing Neuron Equations
Equations in Matrix Form
How to Train NNs?
The Loss Function
Neural Network Full Course | Neural Network Tutorial For Beginners | Neural Network | Simplilearn - Neural Network Full Course | Neural Network Tutorial For Beginners | Neural Network | Simplilearn by Simplilearn 53,996 views Streamed 2 years ago 8 hours, 14 minutes - This full course video on **Neural Network**, tutorial will help you understand what a **neural network**, is, how it works, and what are the ...
Back Propagation in Neural Network with an example - Back Propagation in Neural Network with an example by Naveen Kumar 779,711 views 5 years ago 12 minutes, 45 seconds - understanding how the input flows to the output in back propagation **neural network**, with the calculation of values in the network.

Neural Networks Explained in 5 minutes - Neural Networks Explained in 5 minutes by IBM Technology 152,147 views 1 year ago 4 minutes, 32 seconds - Neural networks, reflect the behavior of the human brain, allowing computer programs to recognize patterns and solve common ...
Neural Networks Are Composed of Node Layers
Five There Are Multiple Types of Neural Networks
Recurrent Neural Networks
Watching Neural Networks Learn - Watching Neural Networks Learn by Emergent Garden 1,043,018 views 7 months ago 25 minutes - A video about **neural networks**,, function approximation, machine learning, and mathematical building blocks. Dennis Nedry did ...
Functions Describe the World
Neural Architecture
Higher Dimensions
Taylor Series
Fourier Series
The Real World
An Open Challenge
All Machine Learning Models Explained in 5 Minutes | Types of ML Models Basics - All Machine Learning Models Explained in 5 Minutes | Types of ML Models Basics by Learn with Whiteboard 1,117,354 views 3 years ago 5 minutes, 1 second - Confused about understanding machine learning models? Well, this video will help you grab the basics of each one of them.
Introduction
Overview
Supervised Learning
Linear Regression
Decision Tree
Random Forest
Neural Network
Classification
Support Vector Machine
Classifier
Unsupervised Learning
Dimensionality Reduction
Neural Networks Explained - Machine Learning Tutorial for Beginners - Neural Networks Explained - Machine Learning Tutorial for Beginners by LearnCode.academy 484,447 views 5 years ago 12 minutes, 7 seconds - If you know nothing about how a **neural network**, works, this is the video for you! I've worked for weeks to find ways to explain this ...
Hidden Layers
Common Configuration Options
Neural Network Initialize
Activation Functions
Example Formula
Train a Neural Network
What is Back Propagation - What is Back Propagation by IBM Technology 34,821 views 8 months ago 8 minutes - Neural networks, are great for predictive modeling — everything from stock trends to language translations. But what if the answer ...
Neural Networks Explained from Scratch using Python - Neural Networks Explained from Scratch using Python by Bot Academy 287,008 views 3 years ago 17 minutes - When I started learning **Neural Networks**, from scratch a few years ago, I did not think about just looking at some Python code or ...
Basics
Bias
Dataset
One-Hot Label Encoding
Training Loops
Forward Propagation
Cost/Error Calculation
Backpropagation
Running the Neural Network
Where to find What

Outro
Google's self-learning AI AlphaZero masters chess in 4 hours - Google's self-learning AI AlphaZero masters chess in 4 hours by ChessNetwork 1,565,224 views 6 years ago 18 minutes - Google's AI AlphaZero has shocked the chess world. Leaning on its deep **neural networks**,, and general reinforcement learning ...
The Complete Mathematics of Neural Networks and Deep Learning - The Complete Mathematics of Neural Networks and Deep Learning by Adam Dhalla 350,049 views 3 years ago 5 hours - A complete guide to the mathematics behind **neural networks**, and backpropagation. In this lecture, I aim to explain the ...
Introduction
Prerequisites
Agenda
Notation
The Big Picture
Gradients
Jacobians
Partial Derivatives
Chain Rule Example
Chain Rule Considerations
Single Neurons
Weights
Representation
Example
Learn TensorFlow and Deep Learning fundamentals with Python (code-first introduction) Part 1/2 - Learn TensorFlow and Deep Learning fundamentals with Python (code-first introduction) Part 1/2 by Daniel Bourke 772,059 views 3 years ago 10 hours, 15 minutes - Ready to learn the fundamentals of TensorFlow and deep learning with Python? Well, you've come to the right place. After this ...
Intro/hello/how to approach this video
MODULE 0 START (TensorFlow/deep learning fundamentals)
[Keynote] 1. What is deep learning?
[Keynote] 2. Why use deep learning?
[Keynote] 3. What are neural networks?
[Keynote] 4. What is deep learning actually used for?
[Keynote] 5. What is and why use TensorFlow?
[Keynote] 6. What is a tensor?
[Keynote] 7. What we're going to cover
[Keynote] 8. How to approach this course
9. Creating our first tensors with TensorFlow
10. Creating tensors with tf Variable
11. Creating random tensors
12. Shuffling the order of tensors
13. Creating tensors from NumPy arrays
14. Getting information from our tensors
15. Indexing and expanding tensors
16. Manipulating tensors with basic operations
17. Matrix multiplication part 1
18. Matrix multiplication part 2
19. Matrix multiplication part 3
20. Changing the datatype of tensors
21. Aggregating tensors
22. Tensor troubleshooting
23. Find the positional min and max of a tensor
24. Squeezing a tensor
25. One-hot encoding tensors
26. Trying out more tensor math operations
27. Using TensorFlow with NumPy
MODULE 1 START (neural network regression)
[Keynote] 28. Intro to neural network regression with TensorFlow
[Keynote] 29. Inputs and outputs of a regression model

[Keynote] 30. Architecture of a neural network regression model
31. Creating sample regression data
32. Steps in modelling with TensorFlow
33. Steps in improving a model part 1
34. Steps in improving a model part 2
35. Steps in improving a model part 3
36. Evaluating a model part 1 ("visualize, visualize, visualize")
37. Evaluating a model part 2 (the 3 datasets)
38. Evaluating a model part 3 (model summary)
39. Evaluating a model part 4 (visualizing layers)
40. Evaluating a model part 5 (visualizing predictions)
41. Evaluating a model part 6 (regression evaluation metrics)
42. Evaluating a regression model part 7 (MAE)
43. Evaluating a regression model part 8 (MSE)
44. Modelling experiments part 1 (start with a simple model)
45. Modelling experiments part 2 (increasing complexity)
46. Comparing and tracking experiments
47. Saving a model
48. Loading a saved model
49. Saving and downloading files from Google Colab
50. Putting together what we've learned 1 (preparing a dataset)
51. Putting together what we've learned 2 (building a regression model)
52. Putting together what we've learned 3 (improving our regression model)
[Code] 53. Preprocessing data 1 (concepts)
[Code] 54. Preprocessing data 2 (normalizing data)
[Code] 55. Preprocessing data 3 (fitting a model on normalized data)
MODULE 2 START (neural network classification)
[Keynote] 56. Introduction to neural network classification with TensorFlow
[Keynote] 57. Classification inputs and outputs
[Keynote] 58. Classification input and output tensor shapes
[Keynote] 59. Typical architecture of a classification model
60. Creating and viewing classification data to model
61. Checking the input and output shapes of our classification data
62. Building a not very good classification model
63. Trying to improve our not very good classification model
64. Creating a function to visualize our model's not so good predictions
65. Making our poor classification model work for a regression dataset
Why Neural Networks can learn (almost) anything - Why Neural Networks can learn (almost) anything by Emergent Garden 1,190,856 views 2 years ago 10 minutes, 30 seconds - A video about **neural networks**,, how they work, and why they're useful. My twitter: https://twitter.com/max_romana SOURCES ...
Intro
Functions
Neurons
Activation Functions
NNs can learn anything
NNs can't learn anything
but they can learn a lot
Building a neural network FROM SCRATCH (no Tensorflow/Pytorch, just numpy & math) - Building a neural network FROM SCRATCH (no Tensorflow/Pytorch, just numpy & math) by Samson Zhang 1,727,647 views 3 years ago 31 minutes - Kaggle notebook with all the code: https://www.kaggle.com/wwsalmon/simple-mnist-nn-from-scratch-numpy-no-tf-keras Blog ...
Problem Statement
The Math
Coding it up
But what is a neural network? | Chapter 1, Deep learning - But what is a neural network? | Chapter 1, Deep learning by 3Blue1Brown 15,672,428 views 6 years ago 18 minutes - Additional funding for this project provided by Amplify Partners Typo correction: At 14 minutes 45 seconds, the last index on the ...

Introduction example
Series preview
What are neurons?
Introducing layers
Why layers?
Edge detection example
Counting weights and biases
How learning relates
Notation and linear algebra
Recap
Some final words
ReLU vs Sigmoid
CS231n Winter 2016: Lecture 4: Backpropagation, Neural Networks 1 - CS231n Winter 2016: Lecture 4: Backpropagation, Neural Networks 1 by Andrej Karpathy 283,900 views 8 years ago 1 hour, 19 minutes - Stanford Winter Quarter 2016 **class**,: CS231n: Convolutional **Neural Networks**, for Visual Recognition. Lecture 4. Get in touch on ...
Administrative points
Computational Graphs
Simple Concrete
Intuitions
Multivariate Chain Rule
Multivariate Chain Rule Implementation
Multivariate Gate Implementation
Deep Learning Framework
Mall Constant Layer
Caf
Vectors
Jacobian
Minibatch
Design
Summary
Score Functions
Introduction to Neural Networks with Example in HINDI | Artificial Intelligence - Introduction to Neural Networks with Example in HINDI | Artificial Intelligence by Gate Smashers 907,923 views 4 years ago 11 minutes, 20 seconds - Subscribe to our new channel:https://www.youtube.com/@varunainashots »Artificial Intelligence (Complete Playlist): ...
Neural Networks & TensorfFlow Crash Course - Neural Networks & TensorfFlow Crash Course by Traversy Media 49,045 views 3 years ago 2 hours, 5 minutes - In this 2+ hour crash course, we will dive into **neural networks**, and the TensorFlow Python library Tech With Tim YouTube: ...
Introduction
How a Neural Network Works
Loading & Looking at Data
Building Our First Model
Making Predictions
Text Classification with Movie Reviews
Embedding Layer Explanation
Global Average Pooling Layer
Training the Text Classification Model
Saving & Loading a Model
Deep Learning | What is Deep Learning? | Deep Learning Tutorial For Beginners | 2023 | Simplilearn - Deep Learning | What is Deep Learning? | Deep Learning Tutorial For Beginners | 2023 | Simplilearn by Simplilearn 1,254,702 views 4 years ago 5 minutes, 52 seconds - This video on What is Deep Learningprovides a fun and simple introduction to its concepts. We learn about where Deep Learning ...
Coding Neural Networks / Real World Examples - Coding Neural Networks / Real World Examples by FireFly No views 38 minutes ago 15 minutes - In this video, we delve into the intricate world of coding **neural networks**,, accompanied by real-life examples to enhance your ...
What is a Neural Network | Neural Networks Explained in 7 Minutes | Edureka - What is a Neural Network | Neural Networks Explained in 7 Minutes | Edureka by edureka! 203,149 views 4 years ago

7 minutes, 34 seconds - ---------- Instagram: https://www.instagram.com/edureka_learning/ ...
Introduction
Deep Learning
Example
Processing
Back Propagation
Visual Translation
SelfDriving Cars
Virtual Assistants
Gaming
Wordsmith
Backpropagation in Neural Networks | Back Propagation Algorithm with Examples | Simplilearn - Backpropagation in Neural Networks | Back Propagation Algorithm with Examples | Simplilearn by Simplilearn 105,893 views 1 year ago 6 minutes, 48 seconds - 00:00 - What is Backpropagation? This phase contains the definition of backpropagation with diagrammatic representation. 01:41 ...
Lecture 19 : Introduction to Neural Network - Lecture 19 : Introduction to Neural Network by IIT Kharagpur July 2018 19,709 views 4 years ago 29 minutes - Introduction to the **neural network**,, Boolean Function realization using **neural networks**,.
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