

5TH WORLD MACHINE LEARNING AND DEEP LEARNING CONGRESS
and
WORLD CONGRESS ON
COMPUTER SCIENCE, MACHINE LEARNING AND BIG DATA

August 30-31, 2018 Dubai, UAE



Tanya Dixit and Sriharsha Allenki

Qualcomm, India



Deep learning: A beginner's guide to start coding neural networks and apply in areas of computer vision and natural language processing

Deep learning is an emerging area in machine learning. It is based entirely on the understanding of neural networks and their different architectures to achieve specific goals. Convolutional neural networks are used in computer vision to help machines identify faces, animals, cars, etc. Different convolutional neural network architectures have been developed in recent times to make computer vision tasks easier. Transfer learning can be applied to use the weights and architecture from an already trained network like VGG16 or VGG19 and apply it to relevant tasks. Recurrent neural networks are another class of neural networks that allows context to be preserved and hence is used for language processing. There are various types such as LSTMs, GRUs. Each has their advantages. This study discusses the basics of neural networks, mathematics of back-propagations, intricacies of CNNs, RNNs and then advance architectures like residual networks and ladder networks.

Biography

Tanya Dixit has completed her BTech from BITS Pilani in Electrical and Electronics Engineering. She is working as an Engineer at Qualcomm, a pioneer in wireless and IOT chips. She is a machine learning and artificial intelligence enthusiast and is a deep thinker. She has a firm grasp of psychology, cognitive science, embedded systems, machine learning and hopes to build products that make the life of the common man better.

tanya2911dixit@gmail.com

Notes: