

Dear Students,

I hope you're all doing well and feeling excited about our upcoming sessions on Neural Networks. I want to ensure that we're all set up and ready to dive into this fascinating world of deep learning.

****Getting Started****

By now, I hope you've set up the necessary software. If you haven't, please make sure to do so before our first session.

****Session 1: Understanding Neural Networks and Backpropagation****

In our first session, we'll be exploring the inner workings of Neural Network models. Our primary focus will be on implementing the backpropagation algorithm, a fundamental component of training Neural Networks. To prepare, please review the following tutorial:

[Tutorial: Basics of Neural Networks and Backpropagation]
(<https://www.kaggle.com/code/soham1024/basic-neural-network-from-scratch-in-python>)

Feel free to come with any questions or thoughts you have after going through the tutorial.

****Session 2: Implementing a Multilayer Neural Network with Keras****

In the next step of our journey, we will directly dive into implementing a Multilayer Neural Network using the TensorFlow-based Keras library. To get ready for this session, please review the following resources:

1. [Tutorial: MNIST Dataset]
(<https://www.kaggle.com/code/akashkanojiya/mnist-dataset>)
2. [Machine Learning Mastery: Building Multi-Layer Perceptron Neural Network Models in Keras]
(<https://machinelearningmastery.com/build-multi-layer-perceptron-neural-network-models-keras/>)

I'm looking forward to our sessions and the exciting discussions and discoveries that await us. Please don't hesitate to reach out if you have any questions or need assistance along the way.

Best regards,