

Week 6 Assignment - MSc AIDA UoM

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Academic Year: 2021-2022

In the following links, there are examples of single hidden layer networks for the Fashion-MNIST dataset on Google Colab, using regularization **Keras Regularization**.

Create a copy of the Notebook in your Google Drive so you can edit it, from the menu File Save a copy in Drive.

Tasks:

1. Make a copy of the Notebook in your Google Drive in order to be able to edit them.
2. Present the best model from Week 5's assignment and use it as a "base".
3. Use the notebook examples to better train (improve accuracy) the best model from Week 5 by applying regularization/dropout/batchnorm/early stopping. If needed, increase the network size.
4. Try using data augmentation, specifically random flip and random crop (see the Keras documentation and online examples).
5. **Bonus:** Implement a Cyclic Learning Rate Schedule and use it.

Answer each question separately, making one change at a time. Do not go, for example, directly from the initial model to using L1+Dropout. First apply L1, then L1+Dropout.