

# Image Classification with Deep Learning

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## Description

Image Classification is a common yet challenging problem. Our aim is to participate in the Digital Recognizer Kaggle Challenge [1], where one has to correctly classify the Modified National Institute of Standards and Technology (MNIST) dataset of handwritten numerical digits. This dataset is a classic within the Machine Learning community and has been extensively studied.

For our first approach we propose using a simple Feed-Forward Neural Network to form a baseline for comparison. We then plan on experimenting on different aspects of a Neural Network such as:

- Network Architecture
- Activation Functions
- Learning Methods

to further improve and explore different configurations of a Neural Network that would best classify the MNIST dataset.

## References

- [1] Digital Recognizer Kaggle Competition. <https://www.kaggle.com/c/digit-recognizer>. Accessed: 2015-10-01.