Need to determine which deep learning library we are going to use for integration with the LIDA framework and for the flagship project.

Criteria for evaluating libraries:

1. Correctness (ability to properly classify inputs based on sample problems)
2. Intuitive API
3. Actively maintained
   1. support from development issues
   2. future enhancements anticipated
4. Performance (GPU support)
5. Supported algorithms
6. Used widely for academic research
7. Smallest level of effort
8. Pure Java?

Potential Java Candidates:

1. Java Deep Learning Libraries:
   1. DL4J (<http://deeplearning4j.org/>)

Deeplearning4j is the first commercial-grade, open-source, distributed deep-learning library written for Java and Scala. Integrated with Hadoop and Spark, DL4J is designed to be used in business environments, rather than as a research tool.

Skymind is its commercial support arm.

1. Neuroph (<http://neuroph.sourceforge.net/>)
   1. java deep learning algorithms and deep neural networks with gpu acceleration
2. NeuralNetworks - <https://github.com/ivan-vasilev/neuralnetworks>

This is a Java implementation of some of the algorithms for training deep neural networks. GPU support is provided via the

OpenCL and Aparapi. The architecture is designed with modularity, extensibility and pluggability in mind.

Supported Neural network types

* + Multilayer perceptron
  + Restricted Boltzmann Machine
  + Autoencoder
  + Deep belief network
  + Stacked autoencoder
  + Convolutional networks with max pooling, average poolng and stochastic pooling.

1. Weka?
   1. Found reference that there were several neural network implementations in Weka. Not sure if it is suitable for what we need.

Alternative would be to use a library for another language (C or Python?) and translate to java.

Posting of ongoing documentation:

* Suggestion of posting documentation related to meeting notes and presentation material to github under the ccrg-docs repository.