Recommended Sources on A.I./Machine Learning

Table of Contents

General Machine Learning and Artificial Intelligence

Andrej Karpathy Blog

- Hacker's guide to Neural Networks
- The Unreasonable Effectiveness of Recurrent Neural Networks

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I recommend starting here for basic Neural Network concepts.

- A Neural Network in 11 lines of Python (Part 1)
- A Neural Network in 13 lines of Python (Part 2 - Gradient Descent)
- Anyone Can Learn To Code an LSTM-RNN in Python (Part 1: RNN)

WildML

- Recurrent Neural Networks Tutorial, Part 1 – Introduction to RNNs
- Recurrent Neural Networks Tutorial, Part 2 – Implementing a RNN with Python, Numpy and Theano
- Recurrent Neural Networks Tutorial, Part 3 – Backpropagation Through Time and Vanishing Gradients
- Recurrent Neural Network Tutorial, Part 4 – Implementing a GRU/LSTM RNN with Python and Theano

Other Sources

- [Awesome Machine Learning](#)
- [Understanding LSTM Networks](#)

Knowledge Graphs and Computational Fact-Checking

- [Automated Fact-Checking presentation by Joshua Chen](#)

Papers

- [Computational Fact Checking from Knowledge Networks](#)
- [Computational Fact Checking through Query Perturbations](#)
- [Discriminative Predicate Path Mining for Fact Checking in Knowledge Graphs](#)
- [A Review of Relational Machine Learning for Knowledge Graphs](#)
- [Towards Computational Fact-Checking](#)

Natural Language Processing

Copies of these papers are in the PDF directory. I recommend starting with "Text Mining: the State of the Art and the Challenges" for an overview of text mining.

General

Articles, Blogposts, and Tutorials

- [edX Course on Natural Language Processing](#)
- [Oxford Deep NLP 2017 Course](#)
- [Regular Expressions 101](#)

Papers

- [Evolving Better Stoplists for Document Clustering and Web Intelligence](#)
- [On Stopwords, Filtering and Data Sparsity for Sentiment Analysis of Twitter](#)
- [Preprocessing Techniques for Text Mining - An Overview](#)
- [Retrieval Effectiveness on the Web](#)
- [Risk Information Extraction and Aggregation](#)
- [Text Mining: The State of the Art and the Challenges](#)

word2vec and doc2vec

I haven't read through these yet, but it seems that *Efficient Estimation of Word Representations in*

Vector Space and *Distributed Representations of Words and Phrases and their Compositionality* started it all. Here are the links for documentation on word2vec and doc2vec.

Articles, Blogposts, and Tutorials

- A Gentle Intorduction to Doc2Vec
- Vector Representations of Words
- Word2Vec Tutorial - The Skip-Gram Model
- Word2Vec Tutorial Part 2 - Negative Sampling

Papers

- An Empirical Evaluation of doc2vec with Practical Insights into Document Embedding Generation
- Distributed Representations of Sentences and Documents
- Distributed Representations of Words and Phrases and their Compositionality
- Efficient Estimation of Word Representations in Vector Space
- Neural Network Doc2vec in Automated Sentiment Analysis for Short Informal Texts