COMP 6741 Intelligent Systems

Project Report

Zhixian Xiang 40017081 Bo Wang 40183470

Introduction

This project is to build Unibot, an intelligent agent that can answer university course and student related questions, using a knowledge graph and natural language processing.

1. Competency Questions:

- 1. What is course [Course subject] [Course code] about? ex:What is course COMP 6741 about?
- 2. Which topics is [Student] competent in?

 ex:Which topics is Bo Wang competent in?
- 3. Which course teaches [Topic]?
 ex:Which course teaches a knowledge graph?
- 4. Which topics are covered in course [Course subject] [Course code]? ex:Which topics are covered in COMP 6741?
- 5. What is [Student]'s Email?

 ex:What is Bo Wang's Email?
- 6. What are the readings for course [Course subject] [Course code]? ex: What are the suggested readings for COMP 6741?
- 7. How many credits [Student] gained at [University]? ex:How many credits Bo Wang gained at Concordia?
- 8. How many lectures are in [Course]?

 ex:How many lectures are in COMP 6741?
- 9. How many courses did [Student] attend at [University]?

 ex:How many courses did Bo Wang attend at Concordia?
- 10. How many credits is course [Course subject] [Course code] worth?

ex: How many credits is course COMP 6741 worth?

11. Which topics are covered in [content] of [Course subject] [Course code]?

ex:Which topics are covered in Lab #3 of COMP 6721?

12. Can you list all related course content for [topic]?

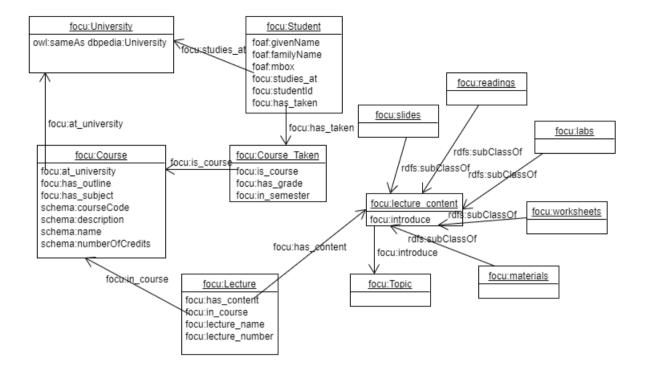
ex:Can you list all related course content for knowledge graph? statistics questions:

- 13. How many triples in total?
- 14. How many distinct topics?
- 15. How many courses in total?
- 16. How many topics in total?

2. Vocabulary:

We created 12 classes along with their properties. Each class and property has its own definition, rdfs:label, rdfs:comment, etc. We used some existing vocabulary and also developed some. For example, for st udents, we used foaf vocabularies to describe person properties and for courses we chose some from schema vocabularies.

The models and vocabularies are as follow:



3. Knowledge Base Construction:

PartI:

- (a) To build my knowledge database, We used a total of 7 datasets. One is the course CSV file which has all the information about Concordia's courses from the open datasets, the other two lect ure CSV files collected the basic info of the materials of the two main courses in our knowledge base, two students CSV files are some information about the students, the last two file fold ers consisting of detailed various course materials for the two courses.
- (b) For the course materials in the file folders, each file has its corresponding fire URI in the corresponding course CSV file. For the CSV file, we first do the data cleaning to make sure th e data is well-formatted and rid of irrelevancies before it is used and then use python to read all the csv files and turn the m into RDF files.

PartII:

Pre-Processing: Use Apache Tika as an external library to convert all the

materials that each course has from their original source format to the plain

text files and save the converted file path to the corresponding lect ure $\ensuremath{\mathsf{CSV}}$

file.

Entity Linking: For each material section, we will first set up our S pacy environment and load pre-trained models in order to get entities of our input text data. Since we need to link our entity to DBpedia, thus we add the custom DBpedia pipeline for the linking purpose. In addition to the custom pipeline, we also add a configuration of confidence level and overwrite entities flag to prevent multiple

entities for the same input;

We then read and load the corresponding converted file according to the material section we are working on of the lecture file. For each entity, we make sure there are no duplicates as well as for the entity links, and so ince we just want the named entities for the topics, therefore, we only work with those whose POS tags are "NOUN" or "PROPN". Also, we want the entity to be successfully linked to DBpedia, so we filter the entity only with

h its label equal to "DBPEDIA_ENT". Besides, to avoid mistaking the entities, we set a criterion that the similarity score must be higher than 0.85.

Triplication: After we filter all the entities we want, we encode the m in the form of triples and link them to the corresponding course event. F inally, we merge each subgraph together to get the final knowledge base.

Total number of triples	18599
Total number of distinct topics	1167
Total number of topic instances	1167
Total number of course instances	1715

4. Queries:

- a, For some simple questions as
 - 1. What is course COMP6741 about?
 - 5. What is Bo Wang's Email?
 - 6. What are the suggested readings for COMP6741?
 - 10. How many credits is course COMP6741 worth?

since the information is all in one model, we need just put the conditions and using the model it queries, for example the query for quest ion5:

```
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
SELECT ?email
WHERE {
     ?student foaf:givenName "Bo"@en.
     ?student foaf:familyName "Wang"@en.
     ?student foaf:mbox ?email.
}
```

the output will be student Bo Wang's email: bowang@concordia.ca

- b, For some questions which need some calculations as
 - 7. How many credits Bo Wang gained at Concordia?
 - 8. How many lectures are in COMP6741?
 - 9. How many courses did Bo Wang attend at Concordia?
 - 11. How many triples in total?

we can use the functions SPARQL provided, for example the query for question8:

```
?lecture focu:in_course ?course.
```

The output will be 7 lectures which we have in our knowledge db.

c, For more complicated questions as

}

- 2. Which topics are Bo Wang competent in?
- 3. Which course teaches a knowledge graph?
- 4. Which topics are covered in COMP 6741?

PREFIX focu: http://focu.io/schema#>

we need to connect two or more models with the properties we created, for example the query for question3:

since we have two courses which teach this topic.

Result list for questions: (part1)

1,

```
Knowledge representation and reasoning. Uncertainty and conflict resolutio
n. Design of intelligent systems. Grammar-based, rule-based, and blackboard
architectures. A project is required. Laboratory: two hours per week
2,
Convolutional Neural Network: http://dbpedia.org/resource/Convolutional neu
ral network
Artificial Neural Network: http://dbpedia.org/resource/Artificial neural ne
twork
Naive Bayes Classifier: http://dbpedia.org/resource/Naive_Bayes_classifier
Heuristic: http://dbpedia.org/resource/Heuristic
State Space Search: http://dbpedia.org/resource/State space
Natural Language Processing: http://dbpedia.org/resource/Natural language p
rocessing
Artificial Intelligence: http://dbpedia.org/resource/Artificial intelligenc
е
Decision Tree: http://dbpedia.org/resource/Decision_tree
Vector Space Model: http://dbpedia.org/resource/Vector space
Knowledge Graph: http://dbpedia.org/resource/knowledge-graphs
3,
Intelligent Systems
Introduction to Artificial Intelligence
4,
Vocabulary http://dbpedia.org/resource/Vocabulary
Knowledge Graph
                 http://dbpedia.org/resource/knowledge-graphs
                 http://dbpedia.org/resource/Knowledge base
Knowledge Base
Recommender System
                        http://dbpedia.org/resource/Recommender system
                        http://dbpedia.org/resource/Intelligent system
Intelligent System
Machine Learning http://dbpedia.org/resource/Machine learning
            http://dbpedia.org/resource/SPARQL
SPARQL
```

5, bowang@condordia. ca

6, https://techblog.wikimedia.org/2020/03/24/computational-knowledge-wikidata-wikidata-query-service-and-women-who-are-mayors/

https://datajournalism.com/read/longreads/the-promise-of-wikidata

https://stanford.edu/~shervine/teaching/cs-229/refresher-algebra-calculus

https://en.wikipedia.org/wiki/Precision_and_recall

https://en.wikipedia.org/wiki/K-means_clustering

https://www.datacamp.com/community/tutorials/k-nearest-neighbor-classification-scikit-learn

- 7, 8
- 8, 7
- 9, 2
- 10, 4
- 11, How many triples in total: 13024
- 12, How many courses in total: 1715

5, KB population: Add a section (ca. one page) describing your process of creating the topic triples for your knowledge base (processing, linking, filtering), together with a table providing statistics for the generated triples (total number of triples, number of distinct topics, number of topic in stances/course).

6, Chatbot design:

First define the intent, and list all the questions as training data, Rasa NLU will perform model training based on this data, and then use the model to semantically understand user messages. Stories are the scene flow of the dialogue, which contains the intent and entity that can reflect the user's input information and the actions that should be taken in the reply. We ext ract the slot value in the action, pass it to the relevant sparql as a variable, and send a request to the fuseki server, and then return after getting the answer.

Result list for sample questions:

1. what is course COMP 6741 about?

Knowledge representation and reasoning. Uncertainty and conflict resolutio n. Design of intelligent systems. Grammar-based, rule-based, and blackboard architectures. A project is required. Laboratory: two hours per week

2. which topics is Bo Wang competent in?

Here are the topics Bo Wang competent in.

Inverse: http://dbpedia.org/resource/Multiplicative inverse

XML: http://dbpedia.org/resource/XML

Manning Publications: http://dbpedia.org/resource/Manning Publications

open source: http://dbpedia.org/resource/Open-source software

open-source: http://dbpedia.org/resource/Open-source software

algorithm: http://dbpedia.org/resource/Algorithm

```
case law: http://dbpedia.org/resource/Case law
GATE: http://dbpedia.org/resource/Graduate Aptitude_Test_in_Engineering
GATE: http://dbpedia.org/resource/General Architecture for Text Engineering
Macbeth: http://dbpedia.org/resource/Macbeth
UK: http://dbpedia.org/resource/United Kingdom
POS: http://dbpedia.org/resource/Point of sale
POS: http://dbpedia.org/resource/Part of speech
Morphological Analysis: http://dbpedia.org/resource/Morphological analysis
problem-solving
lemma: http://dbpedia.org/resource/Spikelet
PDF: http://dbpedia.org/resource/PDF
incidence: http://dbpedia.org/resource/Incidence matrix
Anthony Julius: http://dbpedia.org/resource/Anthony Julius
Natural Language Processing (NLP): http://dbpedia.org/resource/Natural lang
uage_processing
insurance: http://dbpedia.org/resource/Insurance
Brutus: http://dbpedia.org/resource/Brutus the Younger
lengths: http://dbpedia.org/resource/Horse length
lengths: http://dbpedia.org/resource/Length
Apache: http://dbpedia.org/resource/The Apache Software Foundation
Apache: http://dbpedia.org/resource/Apache HTTP Server
database: http://dbpedia.org/resource/Database
Prabhakar Raghavan: http://dbpedia.org/resource/Prabhakar_Raghavan
Caesar: http://dbpedia.org/resource/Julius_Caesar
Hamlet: http://dbpedia.org/resource/Hamlet
L2 norm: http://dbpedia.org/resource/Lp space
Wuthering Heights: http://dbpedia.org/resource/Wuthering Heights
dog: http://dbpedia.org/resource/Dog
IBM: http://dbpedia.org/resource/IBM
```

verb: http://dbpedia.org/resource/Verb

```
HTML: http://dbpedia.org/resource/HTML
high-dimensional space: http://dbpedia.org/resource/Dimension
inflection: http://dbpedia.org/resource/Inflection
Sheffield: http://dbpedia.org/resource/Sheffield
dft: http://dbpedia.org/resource/Discrete Fourier transform
cyclohexanedione: http://dbpedia.org/resource/Cyclohexanedione
PyTorch: http://dbpedia.org/resource/PyTorch
Othello: http://dbpedia.org/resource/Othello
Information Extraction: http://dbpedia.org/resource/Information_extraction
Calpurnia: http://dbpedia.org/resource/Calpurnia wife of Caesar
fMLP: http://dbpedia.org/resource/N-Formylmethionine-leucyl-phenylalanine
UIMA: http://dbpedia.org/resource/UIMA
POS tags: http://dbpedia.org/resource/Brown Corpus
LGPL: http://dbpedia.org/resource/GNU Lesser General Public License
NLTK: http://dbpedia.org/resource/Natural Language Toolkit
plagiarism: http://dbpedia.org/resource/Plagiarism
Keras: http://dbpedia.org/resource/Keras
VSM: http://dbpedia.org/resource/Vishisht Seva Medal
qi: http://dbpedia.org/resource/Qi
Cleopatra: http://dbpedia.org/resource/Cleopatra
lexicon: http://dbpedia.org/resource/Lexicon
Tokenization: http://dbpedia.org/resource/Lexical_analysis
JAPE: http://dbpedia.org/resource/Computational_humor
Max: http://dbpedia.org/resource/Comet_Man
Max: http://dbpedia.org/resource/Max Branning
word segmentation: http://dbpedia.org/resource/Text segmentation
Schütze: http://dbpedia.org/resource/Schütze
grammar: http://dbpedia.org/resource/Grammar
grammar: http://dbpedia.org/resource/Formal grammar
```

Stanford: http://dbpedia.org/resource/Stanford University

```
unit sphere: http://dbpedia.org/resource/Unit sphere
Coreference: http://dbpedia.org/resource/Coreference
pi: http://dbpedia.org/resource/Pi
NLP: http://dbpedia.org/resource/Natural language processing
log10: http://dbpedia.org/resource/Common logarithm
vectors: http://dbpedia.org/resource/Euclidean vector
tf-idf: http://dbpedia.org/resource/Tf-idf
named entities: http://dbpedia.org/resource/Named-entity recognition
cosine similarity: http://dbpedia.org/resource/Cosine_similarity
log2: http://dbpedia.org/resource/Binary logarithm
centroids: http://dbpedia.org/resource/Centroid
training data: http://dbpedia.org/resource/Training,_validation,_and_test_s
ets
feature vector: http://dbpedia.org/resource/Feature machine learning
F1: http://dbpedia.org/resource/Formula One
calculator: http://dbpedia.org/resource/Calculator
k-means: http://dbpedia.org/resource/K-means clustering
Your Decision: http://dbpedia.org/resource/Your Decision
matplotlib: http://dbpedia.org/resource/Matplotlib
subset: http://dbpedia.org/resource/Subset
graph: http://dbpedia.org/resource/Graph database
graph: http://dbpedia.org/resource/Graph_theory
golf: http://dbpedia.org/resource/Golf
decision tree: http://dbpedia.org/resource/Decision_tree
classifier: http://dbpedia.org/resource/Statistical classification
K-means: http://dbpedia.org/resource/K-means clustering
Graphviz: http://dbpedia.org/resource/Graphviz
visualization: http://dbpedia.org/resource/Data visualization
tree: http://dbpedia.org/resource/Tree
fig: http://dbpedia.org/resource/Common_fig
```

```
sklearn: http://dbpedia.org/resource/Scikit-learn
Outlook: http://dbpedia.org/resource/Microsoft Outlook
feature space: http://dbpedia.org/resource/Feature machine learning
Tom Mitchell: http://dbpedia.org/resource/Tom M. Mitchell
Intuition: http://dbpedia.org/resource/Intuition
medicine: http://dbpedia.org/resource/Medicine
cholera: http://dbpedia.org/resource/Cholera
data acquisition: http://dbpedia.org/resource/Data acquisition
John Snow: http://dbpedia.org/resource/John_Snow
F5: http://dbpedia.org/resource/Fujita scale
Shannon: http://dbpedia.org/resource/River Shannon
Ockham: http://dbpedia.org/resource/William of Ockham
X6: http://dbpedia.org/resource/BMW X6
probability: http://dbpedia.org/resource/Conditional probability
probability: http://dbpedia.org/resource/Probability
Russell: http://dbpedia.org/resource/Bertrand_Russell
TP: http://dbpedia.org/resource/Township Canada
moustache: http://dbpedia.org/resource/Moustache
Red Circle: http://dbpedia.org/resource/Dark_Circle_Comics
Outliers: http://dbpedia.org/resource/Outlier
Essence: http://dbpedia.org/resource/Essence
vector: http://dbpedia.org/resource/Euclidean_vector
vector: http://dbpedia.org/resource/Vector_space
Bayes Classifier: http://dbpedia.org/resource/Bayes_classifier
regression: http://dbpedia.org/resource/Regression analysis
physician: http://dbpedia.org/resource/Physician
inductive bias: http://dbpedia.org/resource/Inductive bias
Time complexity: http://dbpedia.org/resource/Time complexity
X4: http://dbpedia.org/resource/CXCR4
```

coin: http://dbpedia.org/resource/Coin

```
C4.5: http://dbpedia.org/resource/C4.5_algorithm
```

class F7: http://dbpedia.org/resource/Milwaukee Road class F7

disjoint sets: http://dbpedia.org/resource/Disjoint_sets

Socrates: http://dbpedia.org/resource/Socrates

bass: http://dbpedia.org/resource/Bass guitar

heuristics: http://dbpedia.org/resource/Heuristic

Type I error: http://dbpedia.org/resource/Type_I_and_type_II_errors

Essential Information: http://dbpedia.org/resource/Ralph Nader

Alison: http://dbpedia.org/resource/Alison_DiLaurentis

Netflix: http://dbpedia.org/resource/Netflix

fair coin: http://dbpedia.org/resource/Fair coin

HP Labs: http://dbpedia.org/resource/Hewlett-Packard

Voltaire: http://dbpedia.org/resource/Voltaire

Thai: http://dbpedia.org/resource/Thai_cuisine

class F4: http://dbpedia.org/resource/GER_Class_M15

Nina: http://dbpedia.org/resource/Nina_Girado

Red Square: http://dbpedia.org/resource/Red Square

salmon: http://dbpedia.org/resource/Salmon

FM: http://dbpedia.org/resource/FM_broadcasting

prior distribution: http://dbpedia.org/resource/Prior probability

cancer: http://dbpedia.org/resource/Cancer

search engine: http://dbpedia.org/resource/Web_search_engine

Markedness: http://dbpedia.org/resource/Markedness

MCC: http://dbpedia.org/resource/Marylebone_Cricket_Club

navigation: http://dbpedia.org/resource/Navigation

PP: http://dbpedia.org/resource/People's Party Spain

tumor: http://dbpedia.org/resource/Neoplasm

bookmaker: http://dbpedia.org/resource/Bookmaker

function: http://dbpedia.org/resource/Protein

function: http://dbpedia.org/resource/Stochastic process

```
function: http://dbpedia.org/resource/Subroutine
sample space: http://dbpedia.org/resource/Sample space
surgeon: http://dbpedia.org/resource/Surgery
Matthews correlation coefficient (MCC): http://dbpedia.org/resource/Matthew
s correlation coefficient
binary classification: http://dbpedia.org/resource/Binary classification
The surgeon: http://dbpedia.org/resource/The Surgeon
A5: http://dbpedia.org/resource/A5 road Great Britain
node: http://dbpedia.org/resource/Lunar_node
BA: http://dbpedia.org/resource/Bachelor of Arts
The goal: http://dbpedia.org/resource/The Goal novel
CA: http://dbpedia.org/resource/California
best-first: http://dbpedia.org/resource/Best-first search
branching factor: http://dbpedia.org/resource/Branching factor
Sam Loyd: http://dbpedia.org/resource/Sam Loyd
chess: http://dbpedia.org/resource/Chess
Depth-limited Search: http://dbpedia.org/resource/Iterative deepening depth
-first search
Heuristics: http://dbpedia.org/resource/Heuristic
shortest path: http://dbpedia.org/resource/Shortest path problem
Google: http://dbpedia.org/resource/Google
DFS: http://dbpedia.org/resource/Depth-first search
big bang: http://dbpedia.org/resource/Big_Bang
permutation: http://dbpedia.org/resource/Permutation
infinite loop: http://dbpedia.org/resource/Infinite loop
amnesia: http://dbpedia.org/resource/Amnesia
n7: http://dbpedia.org/resource/N postcode area
local minimum: http://dbpedia.org/resource/Maxima and minima
exponential space: http://dbpedia.org/resource/EXPSPACE
```

McGraw-Hill: http://dbpedia.org/resource/McGraw-Hill Education

```
Tetris: http://dbpedia.org/resource/Tetris
test function: http://dbpedia.org/resource/Distribution mathematics
Brute force search: http://dbpedia.org/resource/Brute-force search
closed list: http://dbpedia.org/resource/Closed list
A* algorithm: http://dbpedia.org/resource/A* search algorithm
n8: http://dbpedia.org/resource/Rugby union positions
evaluation function: http://dbpedia.org/resource/Evaluation function
plateau: http://dbpedia.org/resource/Plateau
Heureka: http://dbpedia.org/resource/Heureka_science_center
heuristic function: http://dbpedia.org/resource/Heuristic computer science
Monotonicity: http://dbpedia.org/resource/Monotonic function
Algorithm: http://dbpedia.org/resource/Algorithm
search problem: http://dbpedia.org/resource/Search algorithm
search problem: http://dbpedia.org/resource/Search problem
Breadth-first search: http://dbpedia.org/resource/Breadth-first search
Iterative deepening depth-first search: http://dbpedia.org/resource/Iterati
ve deepening depth-first search
lake: http://dbpedia.org/resource/Lake
Depth-first search: http://dbpedia.org/resource/Depth-first search
ice: http://dbpedia.org/resource/Ice
fox: http://dbpedia.org/resource/Fox
human-readable: http://dbpedia.org/resource/Human-readable medium
URL: http://dbpedia.org/resource/URL
URIs: http://dbpedia.org/resource/Uniform_Resource_Identifier
knowledge graphs: http://dbpedia.org/resource/Ontology information science
RDFS: http://dbpedia.org/resource/RDF Schema
knowledge base: http://dbpedia.org/resource/Knowledge base
knowledge graph: http://dbpedia.org/resource/Knowledge Graph
Graph: http://dbpedia.org/resource/Graph of a function
predicates: http://dbpedia.org/resource/First-order logic
```

```
file extension: http://dbpedia.org/resource/Filename_extension
```

intersection: http://dbpedia.org/resource/Intersection

graph operations: http://dbpedia.org/resource/Graph operations

le titre: http://dbpedia.org/resource/Le_Titre

SPARQL: http://dbpedia.org/resource/SPARQL

suffix: http://dbpedia.org/resource/Suffix

Bottleneck: http://dbpedia.org/resource/Free_State_Bottleneck

Liyang: http://dbpedia.org/resource/Liyang

All: http://dbpedia.org/resource/All_autoroute

gene: http://dbpedia.org/resource/Gene

programming: http://dbpedia.org/resource/Computer programming

The Glass Palace: http://dbpedia.org/resource/The_Glass_Palace

Satori: http://dbpedia.org/resource/Satori

schema: http://dbpedia.org/resource/XML schema

schema: http://dbpedia.org/resource/Database schema

MAPK3: http://dbpedia.org/resource/MAPK3

Berlin: http://dbpedia.org/resource/Berlin

gefitinib: http://dbpedia.org/resource/Gefitinib

Description Logic: http://dbpedia.org/resource/Description logic

human immunodeficiency virus: http://dbpedia.org/resource/HIV

Leonardo: http://dbpedia.org/resource/Leonardo_da_Vinci

gp41: http://dbpedia.org/resource/Gp41

protein: http://dbpedia.org/resource/Protein

Sameer: http://dbpedia.org/resource/Sameer_lyricist

A12: http://dbpedia.org/resource/Apple A12

Hanover: http://dbpedia.org/resource/Hanover

Cyc: http://dbpedia.org/resource/Cyc

Le Palais: http://dbpedia.org/resource/Le_Palais

mutation: http://dbpedia.org/resource/Mutation

Google Assistant: http://dbpedia.org/resource/Google_Assistant

```
JSON-LD: http://dbpedia.org/resource/JSON-LD
Logic: http://dbpedia.org/resource/Logic
ISBN: http://dbpedia.org/resource/International Standard Book Number
TED: http://dbpedia.org/resource/TED conference
PHP: http://dbpedia.org/resource/PHP
expression: http://dbpedia.org/resource/Gene expression
Lisa: http://dbpedia.org/resource/Lisa Simpson
Mona Lisa: http://dbpedia.org/resource/Mona Lisa
point mutation: http://dbpedia.org/resource/Point_mutation
N3: http://dbpedia.org/resource/Notation3
Alice: http://dbpedia.org/resource/Alice and Bob
Scott: http://dbpedia.org/resource/Walter_Scott
miroirs: http://dbpedia.org/resource/Miroirs
MAPK1: http://dbpedia.org/resource/MAPK1
Heidelberg: http://dbpedia.org/resource/Heidelberg
N-Triples: http://dbpedia.org/resource/N-Triples
Resource Description Framework (RDF): http://dbpedia.org/resource/Resource
Description Framework
datatype: http://dbpedia.org/resource/Data_type
RDFa: http://dbpedia.org/resource/RDFa
ConceptNet: http://dbpedia.org/resource/Open Mind Common Sense
auteur: http://dbpedia.org/resource/Auteur
Semantic Networks: http://dbpedia.org/resource/Semantic_network
Semantic Web: http://dbpedia.org/resource/Semantic_Web
SHRDLU: http://dbpedia.org/resource/SHRDLU
RDF/XML: http://dbpedia.org/resource/XML
Serialization: http://dbpedia.org/resource/Serialization
IL2: http://dbpedia.org/resource/Interleukin 2
Harper Collins: http://dbpedia.org/resource/HarperCollins
```

URI: http://dbpedia.org/resource/Uniform Resource Identifier

KITLG: http://dbpedia.org/resource/Stem_cell_factor

Wikidata: http://dbpedia.org/resource/Wikidata

GRB2: http://dbpedia.org/resource/GRB2

Lennon: http://dbpedia.org/resource/John Lennon

API: http://dbpedia.org/resource/Application_programming_interface

subclass: http://dbpedia.org/resource/Ship_class

email: http://dbpedia.org/resource/Email

rdfs: http://dbpedia.org/resource/RDF_Schema

brackets: http://dbpedia.org/resource/Bracket

SELECT: http://dbpedia.org/resource/Select SQL

robots!: http://dbpedia.org/resource/Robots!

brevity: http://dbpedia.org/resource/Operation_Brevity

pseudocode: http://dbpedia.org/resource/Pseudocode

The members: http://dbpedia.org/resource/The Members

KG: http://dbpedia.org/resource/Order_of_the_Garter

entailment: http://dbpedia.org/resource/Logical_consequence

CSV: http://dbpedia.org/resource/Comma-separated values

class(es): http://dbpedia.org/resource/Travel class

RDF: http://dbpedia.org/resource/Resource_Description_Framework

currency: http://dbpedia.org/resource/Currency

Amsterdam: http://dbpedia.org/resource/Amsterdam

Semantics: http://dbpedia.org/resource/Semantics

Oscars: http://dbpedia.org/resource/Academy_Awards

vvv: http://dbpedia.org/resource/VVV-Venlo

Nexus: http://dbpedia.org/resource/Google Nexus

Gene Ontology: http://dbpedia.org/resource/Gene ontology

silo: http://dbpedia.org/resource/Silo

David Wood: http://dbpedia.org/resource/Straitjacket Fits

social network: http://dbpedia.org/resource/Social network

constellation: http://dbpedia.org/resource/Constellation

big data: http://dbpedia.org/resource/Big data Needham: http://dbpedia.org/resource/Joseph Needham political science: http://dbpedia.org/resource/Political science search space: http://dbpedia.org/resource/Search algorithm maze: http://dbpedia.org/resource/Maze neats: http://dbpedia.org/resource/The Neats AlphaGo: http://dbpedia.org/resource/AlphaGo Free software: http://dbpedia.org/resource/Free software knowledge revolution: http://dbpedia.org/resource/Knowledge_economy Timeline: http://dbpedia.org/resource/Timeline IEEE: http://dbpedia.org/resource/Institute of Electrical and Electronics E ngineers Humanoid: http://dbpedia.org/resource/Humanoid Robots: http://dbpedia.org/resource/Robot robotics: http://dbpedia.org/resource/Robotics geometry: http://dbpedia.org/resource/Geometry combinatorial explosion: http://dbpedia.org/resource/Combinatorial explosio n Optimism: http://dbpedia.org/resource/Optimism CS1: http://dbpedia.org/resource/Norton CS1 fiction: http://dbpedia.org/resource/Fiction Takeover: http://dbpedia.org/resource/Takeover

Ethics: http://dbpedia.org/resource/Ethics

 $\verb|common sense|: http://dbpedia.org/resource/Common_sense|\\$

digital: http://dbpedia.org/resource/Digital_media

digital: http://dbpedia.org/resource/Digital_data

connectionism: http://dbpedia.org/resource/Connectionism

CiteSeerX: http://dbpedia.org/resource/CiteSeerX

Perceptrons: http://dbpedia.org/resource/Perceptron

paradox: http://dbpedia.org/resource/Paradox

```
recurrent neural networks: http://dbpedia.org/resource/Recurrent neural net
work
Long short-term memory: http://dbpedia.org/resource/Long short-term memory
computer vision: http://dbpedia.org/resource/Computer vision
expert systems: http://dbpedia.org/resource/Expert system
Menabrea: http://dbpedia.org/resource/Luigi Federico Menabrea
bird: http://dbpedia.org/resource/Bird
Cybernetics: http://dbpedia.org/resource/Cybernetics
mathematics: http://dbpedia.org/resource/Mathematics
psychology: http://dbpedia.org/resource/Psychology
JewishEncyclopedia.com: http://dbpedia.org/resource/The Jewish Encyclopedia
Schmidhuber: http://dbpedia.org/resource/Jürgen Schmidhuber
DeepMind: http://dbpedia.org/resource/DeepMind
short stories: http://dbpedia.org/resource/Short story
artificial brain: http://dbpedia.org/resource/Artificial brain
computer hardware: http://dbpedia.org/resource/Computer_hardware
Unix: http://dbpedia.org/resource/Unix
Philosophy: http://dbpedia.org/resource/Philosophy
Wikiversity: http://dbpedia.org/resource/Wikiversity
intelligence: http://dbpedia.org/resource/Intelligence
Nouvelle AI: http://dbpedia.org/resource/Nouvelle AI
Ken Jennings: http://dbpedia.org/resource/Ken_Jennings
Papert: http://dbpedia.org/resource/Seymour_Papert
human intelligence: http://dbpedia.org/resource/Human_intelligence
toy-: http://dbpedia.org/resource/Toy theater
Mitchell Kapor: http://dbpedia.org/resource/Mitch Kapor
consciousness: http://dbpedia.org/resource/Consciousness
ALPAC: http://dbpedia.org/resource/ALPAC
Lotus Development: http://dbpedia.org/resource/Lotus Software
OCR: http://dbpedia.org/resource/Optical character recognition
```

```
Kramnik: http://dbpedia.org/resource/Vladimir Kramnik
Expert Systems: http://dbpedia.org/resource/Expert system
x-ray vision: http://dbpedia.org/resource/X-ray vision
chatbot: http://dbpedia.org/resource/Chatbot
CAPTCHA: http://dbpedia.org/resource/CAPTCHA
automation: http://dbpedia.org/resource/Automation
Weak AI: http://dbpedia.org/resource/Weak AI
anthropomorphic: http://dbpedia.org/resource/Anthropomorphism
Jeopardy!: http://dbpedia.org/resource/Jeopardy!
pronoun: http://dbpedia.org/resource/Pronoun
robot: http://dbpedia.org/resource/Robot
Joseph Weizenbaum: http://dbpedia.org/resource/Joseph_Weizenbaum
computer science: http://dbpedia.org/resource/Computer science
Intel Core 2 Duo: http://dbpedia.org/resource/Intel Core
GOFAI: http://dbpedia.org/resource/Symbolic artificial intelligence
massively parallel: http://dbpedia.org/resource/Massively_parallel
Kasparov: http://dbpedia.org/resource/Garry Kasparov
psychologist: http://dbpedia.org/resource/Psychologist
reasoned action: http://dbpedia.org/resource/Theory_of_reasoned_action
AI: http://dbpedia.org/resource/Artificial intelligence
symbolic computation: http://dbpedia.org/resource/Computer algebra
Machine Translation: http://dbpedia.org/resource/Machine_translation
antibiotics: http://dbpedia.org/resource/Antibiotic
rule-based machine translation: http://dbpedia.org/resource/Rule-based_mach
ine translation
benchmark: http://dbpedia.org/resource/Benchmarking
Lisp: http://dbpedia.org/resource/Common Lisp
bigram: http://dbpedia.org/resource/Bigram
context-free grammar: http://dbpedia.org/resource/Context-free grammar
```

Probability: http://dbpedia.org/resource/Probability

```
Word Sense Disambiguation: http://dbpedia.org/resource/Word-sense disambigu
ation
training corpus: http://dbpedia.org/resource/Training, validation, and test
sets
language model: http://dbpedia.org/resource/Language model
privacy: http://dbpedia.org/resource/Privacy
tokenization: http://dbpedia.org/resource/Lexical analysis
wheel: http://dbpedia.org/resource/Wheel
library: http://dbpedia.org/resource/Library
skin: http://dbpedia.org/resource/Skin
pipelines: http://dbpedia.org/resource/Pipeline transport
laptop: http://dbpedia.org/resource/Laptop
crime: http://dbpedia.org/resource/Crime
knife: http://dbpedia.org/resource/Knife
python: http://dbpedia.org/resource/Pythonidae
overcoat: http://dbpedia.org/resource/Overcoat
candle: http://dbpedia.org/resource/Candle
Princeton: http://dbpedia.org/resource/Princeton_University
Named entity recognition: http://dbpedia.org/resource/Named-entity recognit
ion
fish: http://dbpedia.org/resource/Fish
n-gram: http://dbpedia.org/resource/N-gram
semantic roles: http://dbpedia.org/resource/Thematic_relation
Paris: http://dbpedia.org/resource/Paris
Paraphrase: http://dbpedia.org/resource/Paraphrase
soup: http://dbpedia.org/resource/Soup
butter: http://dbpedia.org/resource/Butter
apple: http://dbpedia.org/resource/Apple
shoe: http://dbpedia.org/resource/Shoe
```

```
Optical character recognition: http://dbpedia.org/resource/Optical characte
r recognition
perfume: http://dbpedia.org/resource/Perfume
Ontario: http://dbpedia.org/resource/Ontario
NP: http://dbpedia.org/resource/Noun phrase
sleep: http://dbpedia.org/resource/Sleep
NER: http://dbpedia.org/resource/Nucleotide excision repair
UN: http://dbpedia.org/resource/United Nations
Castro Theatre: http://dbpedia.org/resource/Castro_Theatre
telescope: http://dbpedia.org/resource/Telescope
metal: http://dbpedia.org/resource/Heavy metal music
musical instrument: http://dbpedia.org/resource/Musical instrument
LOC: http://dbpedia.org/resource/Library of Congress
zoophyte: http://dbpedia.org/resource/Zoophyte
matrix: http://dbpedia.org/resource/Definiteness_of_a_matrix
case sensitivity: http://dbpedia.org/resource/Case_sensitivity
Falkland Islands: http://dbpedia.org/resource/Falkland Islands
Potomac: http://dbpedia.org/resource/Potomac River
elephant: http://dbpedia.org/resource/Elephant
Montreal: http://dbpedia.org/resource/Montreal
bi-: http://dbpedia.org/resource/Glossary_of_leaf_morphology
General Motors: http://dbpedia.org/resource/General_Motors
probability distribution: http://dbpedia.org/resource/Probability_distribut
ion
Jurafsky: http://dbpedia.org/resource/Daniel Jurafsky
gram: http://dbpedia.org/resource/Gram
ML: http://dbpedia.org/resource/Machine learning
ABC: http://dbpedia.org/resource/American Broadcasting Company
Citizen Kane: http://dbpedia.org/resource/Citizen Kane
spam filter: http://dbpedia.org/resource/Email filtering
```

```
California: http://dbpedia.org/resource/California prob: http://dbpedia.org/resource/ProB
```

Sentiment Analysis: http://dbpedia.org/resource/Sentiment_analysis

Silence: http://dbpedia.org/resource/Silence

computer: http://dbpedia.org/resource/Computer

gay: http://dbpedia.org/resource/Gay

European Central Bank: http://dbpedia.org/resource/European_Central_Bank

coffee: http://dbpedia.org/resource/Coffee

Word sense disambiguation: http://dbpedia.org/resource/Word-sense_disambigu

ation

conceptual graph: http://dbpedia.org/resource/Conceptual_graph

milk: http://dbpedia.org/resource/Milk

syntactic ambiguity: http://dbpedia.org/resource/Syntactic_ambiguity

fever: http://dbpedia.org/resource/Fever

ADV: http://dbpedia.org/resource/A.D._Vision

conditional probabilities: http://dbpedia.org/resource/Conditional_probabil

ity

Marx: http://dbpedia.org/resource/Karl Marx

Bush: http://dbpedia.org/resource/George_W._Bush

syntactic constituents: http://dbpedia.org/resource/Constituent_linguistics

helicopter: http://dbpedia.org/resource/Helicopter

broccoli: http://dbpedia.org/resource/Broccoli

Agra: http://dbpedia.org/resource/Agra

zucchini: http://dbpedia.org/resource/Zucchini

Frankfurt: http://dbpedia.org/resource/Frankfurt

Bill Gates: http://dbpedia.org/resource/Bill Gates

Conjunctions: http://dbpedia.org/resource/Conjunctions

magic: http://dbpedia.org/resource/Magic in fiction

Dracula: http://dbpedia.org/resource/Dracula

violin: http://dbpedia.org/resource/Violin

kj: http://dbpedia.org/resource/Joule Pragmatics: http://dbpedia.org/resource/Pragmatics toffee: http://dbpedia.org/resource/Toffee Mubarak: http://dbpedia.org/resource/Hosni Mubarak Walmart: http://dbpedia.org/resource/Walmart Einstein: http://dbpedia.org/resource/Albert Einstein gringo: http://dbpedia.org/resource/Gringo Quantifier: http://dbpedia.org/resource/Quantifier logic base pair: http://dbpedia.org/resource/Base_pair Alcatraz: http://dbpedia.org/resource/Alcatraz Island K-means clustering: http://dbpedia.org/resource/K-means clustering Michael Jackson: http://dbpedia.org/resource/Michael Jackson comma: http://dbpedia.org/resource/Comma mouse: http://dbpedia.org/resource/Mouse mouse: http://dbpedia.org/resource/Computer mouse San Francisco: http://dbpedia.org/resource/San_Francisco Dow Jones: http://dbpedia.org/resource/Dow Jones Industrial Average WALLACHIA: http://dbpedia.org/resource/Wallachia silk: http://dbpedia.org/resource/Silk SF: http://dbpedia.org/resource/Science fiction ibuprofen: http://dbpedia.org/resource/Ibuprofen Kane: http://dbpedia.org/resource/Dany_Kane RHS: http://dbpedia.org/resource/Royal_Horticultural_Society iterator: http://dbpedia.org/resource/Iterator activation function: http://dbpedia.org/resource/Activation function multi-layer perceptron: http://dbpedia.org/resource/Multilayer perceptron back-propagation: http://dbpedia.org/resource/Backpropagation truck: http://dbpedia.org/resource/Truck tensor: http://dbpedia.org/resource/Tensor

DEVICE: http://dbpedia.org/resource/CONFIG.SYS

```
ReLU: http://dbpedia.org/resource/Rectifier neural networks
image classification: http://dbpedia.org/resource/Computer vision
horse: http://dbpedia.org/resource/Horse
convolutional neural network: http://dbpedia.org/resource/Convolutional neu
ral network
cross-validation: http://dbpedia.org/resource/Cross-validation statistics
dimension: http://dbpedia.org/resource/Dimension
convolution: http://dbpedia.org/resource/Convolution
frog: http://dbpedia.org/resource/Frog
hyper-parameter: http://dbpedia.org/resource/Hyperparameter
fully connected network: http://dbpedia.org/resource/Network topology
deer: http://dbpedia.org/resource/Deer
td: http://dbpedia.org/resource/Territorial Decoration
perturbations: http://dbpedia.org/resource/Perturbation theory
scaling parameter: http://dbpedia.org/resource/Scale_parameter
backpropagation: http://dbpedia.org/resource/Backpropagation
Autoencoders: http://dbpedia.org/resource/Autoencoder
neural networks: http://dbpedia.org/resource/Neural network
Twitter: http://dbpedia.org/resource/Twitter
vector field: http://dbpedia.org/resource/Vector field
leverage: http://dbpedia.org/resource/Mechanical advantage
noise: http://dbpedia.org/resource/Noise
hidden node: http://dbpedia.org/resource/Hidden_node_problem
derivative: http://dbpedia.org/resource/Derivative
regularizer: http://dbpedia.org/resource/Regularization mathematics
architecture: http://dbpedia.org/resource/Software architecture
architecture: http://dbpedia.org/resource/Architecture
hyperparameters: http://dbpedia.org/resource/Hyperparameter
neurons: http://dbpedia.org/resource/Neuron
```

neurons: http://dbpedia.org/resource/Artificial neuron

```
neurons: http://dbpedia.org/resource/Artificial neural network
overfit: http://dbpedia.org/resource/Overfitting
infinitesimal: http://dbpedia.org/resource/Infinitesimal
opacity: http://dbpedia.org/resource/Alpha compositing
complex representation: http://dbpedia.org/resource/Complex representation
bottleneck: http://dbpedia.org/resource/Von Neumann architecture
feature extraction: http://dbpedia.org/resource/Feature extraction
latent space: http://dbpedia.org/resource/Latent variable
sparsity: http://dbpedia.org/resource/Sparse_matrix
compression: http://dbpedia.org/resource/Data compression
manifold: http://dbpedia.org/resource/Nonlinear dimensionality reduction
gradient: http://dbpedia.org/resource/Gradient descent
gradient: http://dbpedia.org/resource/Gradient
filter: http://dbpedia.org/resource/Filtration
Autoencoder: http://dbpedia.org/resource/Autoencoder
pooling layer: http://dbpedia.org/resource/Convolutional_neural_network
sigmoid: http://dbpedia.org/resource/Sigmoid function
hT: http://dbpedia.org/resource/Tesla unit
bih: http://dbpedia.org/resource/Bosnia_and_Herzegovina
ImageNet: http://dbpedia.org/resource/ImageNet
Regularization: http://dbpedia.org/resource/Regularization mathematics
NaN: http://dbpedia.org/resource/NaN
neuron: http://dbpedia.org/resource/Neuron
neuron: http://dbpedia.org/resource/Artificial_neuron
Bengio: http://dbpedia.org/resource/Yoshua Bengio
SVM: http://dbpedia.org/resource/Support-vector machine
clause: http://dbpedia.org/resource/Clause
Sutton: http://dbpedia.org/resource/London Borough of Sutton
Hinton: http://dbpedia.org/resource/Geoffrey Hinton
```

layer 3: http://dbpedia.org/resource/Network layer

The weight: http://dbpedia.org/resource/The_Weight

Toronto: http://dbpedia.org/resource/Toronto

human brain: http://dbpedia.org/resource/Human brain

Academic Press: http://dbpedia.org/resource/Academic Press

labeled data: http://dbpedia.org/resource/Labeled_data

GPU: http://dbpedia.org/resource/Graphics processing unit

Convolutional Neural Networks: http://dbpedia.org/resource/Convolutional_ne

ural network

circle: http://dbpedia.org/resource/Circle

convolves: http://dbpedia.org/resource/Convolution

Geoffrey: http://dbpedia.org/resource/Geoffrey of Monmouth

Yann LeCun: http://dbpedia.org/resource/Yann_LeCun

NN: http://dbpedia.org/resource/Normalnull

feature detectors: http://dbpedia.org/resource/Feature detection computer v

ision

Computer Vision: http://dbpedia.org/resource/Computer_vision

Ng: http://dbpedia.org/resource/Andrew Ng

phoneme: http://dbpedia.org/resource/Phoneme

Open Access: http://dbpedia.org/resource/Open_access

The features: http://dbpedia.org/resource/The_Features

CNN: http://dbpedia.org/resource/CNN

RGB: http://dbpedia.org/resource/RGB_color_model

pixel: http://dbpedia.org/resource/Pixel

Canada: http://dbpedia.org/resource/Canada

linguistics: http://dbpedia.org/resource/Linguistics

speech recognition: http://dbpedia.org/resource/Speech recognition

Day6: http://dbpedia.org/resource/Day6

ambulance: http://dbpedia.org/resource/Ambulance

pruning: http://dbpedia.org/resource/Pruning

pasta: http://dbpedia.org/resource/Pasta

```
grayscale: http://dbpedia.org/resource/Grayscale
Bayes' theorem: http://dbpedia.org/resource/Bayes' theorem
E3: http://dbpedia.org/resource/Electronic Entertainment Expo
referee: http://dbpedia.org/resource/Referee
spam filters: http://dbpedia.org/resource/Email filtering
dumbo: http://dbpedia.org/resource/Dumbo
conditionally independent: http://dbpedia.org/resource/Conditional independ
ence
meds": http://dbpedia.org/resource/Hospital
N sets: http://dbpedia.org/resource/VicRail N type carriage
prior probabilities: http://dbpedia.org/resource/Prior probability
Conditional Probability: http://dbpedia.org/resource/Conditional probabilit
У
ham: http://dbpedia.org/resource/Ham
trail: http://dbpedia.org/resource/Trail
computer program: http://dbpedia.org/resource/Computer_program
KNN: http://dbpedia.org/resource/K-nearest neighbors algorithm
dice: http://dbpedia.org/resource/Dice
quintillion: http://dbpedia.org/resource/Names_of_large_numbers
meningitis: http://dbpedia.org/resource/Meningitis
Arthur: http://dbpedia.org/resource/King Arthur
Hum: http://dbpedia.org/resource/Hum TV
measles: http://dbpedia.org/resource/Measles
data analytics: http://dbpedia.org/resource/Analytics
Toothache: http://dbpedia.org/resource/Toothache
viagra: http://dbpedia.org/resource/Sildenafil
inference: http://dbpedia.org/resource/Inference
Joint probability distribution: http://dbpedia.org/resource/Joint probabili
ty distribution
The evidence: http://dbpedia.org/resource/The Evidence TV series
```

```
koko: http://dbpedia.org/resource/Koko the Clown
kotuku: http://dbpedia.org/resource/Great egret
HAM: http://dbpedia.org/resource/Amateur radio
mushrooms: http://dbpedia.org/resource/Mushroom
gourmet: http://dbpedia.org/resource/Gourmet
language: http://dbpedia.org/resource/Language
Link analysis: http://dbpedia.org/resource/Link analysis
Support vector machines: http://dbpedia.org/resource/Support-vector machine
book works: http://dbpedia.org/resource/Book_Works
bibtex: http://dbpedia.org/resource/BibTeX
H1: http://dbpedia.org/resource/Histamine H1 receptor
complement: http://dbpedia.org/resource/Ship's_company
spam email: http://dbpedia.org/resource/Email spam
metro: http://dbpedia.org/resource/Rapid transit
fraud: http://dbpedia.org/resource/Fraud
prior probability: http://dbpedia.org/resource/Prior_probability
toothache: http://dbpedia.org/resource/Toothache
X5: http://dbpedia.org/resource/BMW X5
joint probability distribution: http://dbpedia.org/resource/Joint probabili
ty distribution
H2: http://dbpedia.org/resource/Hydrogen
banana: http://dbpedia.org/resource/Banana
furry: http://dbpedia.org/resource/Furry_fandom
Google Books: http://dbpedia.org/resource/Google_Books
ANN: http://dbpedia.org/resource/Artificial neural network
vocab: http://dbpedia.org/resource/Vocab song
apricot: http://dbpedia.org/resource/Apricot
ruby: http://dbpedia.org/resource/Ruby
Google News: http://dbpedia.org/resource/Google News
```

softmax function: http://dbpedia.org/resource/Softmax function

```
feedforward: http://dbpedia.org/resource/Feedforward neural network
tensors: http://dbpedia.org/resource/Tensor
Argus: http://dbpedia.org/resource/Argus Panoptes
livery: http://dbpedia.org/resource/Livery
le cercle: http://dbpedia.org/resource/Le Cercle
LSTM: http://dbpedia.org/resource/Long short-term memory
CPU: http://dbpedia.org/resource/Central processing unit
tuple: http://dbpedia.org/resource/Tuple
softmax: http://dbpedia.org/resource/Softmax_function
paris: http://dbpedia.org/resource/Paris
trigrams: http://dbpedia.org/resource/Bagua
weed: http://dbpedia.org/resource/Weed
server: http://dbpedia.org/resource/Web server
tennis: http://dbpedia.org/resource/Tennis
blood: http://dbpedia.org/resource/Blood
perceptron: http://dbpedia.org/resource/Perceptron
w14: http://dbpedia.org/resource/W postcode area
bias: http://dbpedia.org/resource/Bias
Activation function: http://dbpedia.org/resource/Activation_function
Delta: http://dbpedia.org/resource/Delta Air Lines
error terms: http://dbpedia.org/resource/Errors and residuals
sign function: http://dbpedia.org/resource/Sign_function
binary representation: http://dbpedia.org/resource/Binary_number
X3: http://dbpedia.org/resource/BMW_X3
rerun: http://dbpedia.org/resource/Rerun
Pay attention: http://dbpedia.org/resource/Pay Attention
false negatives: http://dbpedia.org/resource/False positives and false nega
tives
Test: http://dbpedia.org/resource/Test cricket
```

biology: http://dbpedia.org/resource/Biology

```
Perceptron: http://dbpedia.org/resource/Perceptron
Wikipedia: http://dbpedia.org/resource/Main Page
Wikipedia: http://dbpedia.org/resource/Wikipedia
transfer function: http://dbpedia.org/resource/Transfer function
Gail: http://dbpedia.org/resource/Gail McIntyre
epoch: http://dbpedia.org/resource/Epoch
hyperplane: http://dbpedia.org/resource/Hyperplane
false positive: http://dbpedia.org/resource/False positives and false negat
ives
synapses: http://dbpedia.org/resource/Synapse
W13: http://dbpedia.org/resource/W postcode area
W23: http://dbpedia.org/resource/W19_nuclear_artillery_shell
Handwritten: http://dbpedia.org/resource/Handwriting
neurotransmitters: http://dbpedia.org/resource/Neurotransmitter
Backpropagation: http://dbpedia.org/resource/Backpropagation
decision boundaries: http://dbpedia.org/resource/Decision_boundary
SGD: http://dbpedia.org/resource/Singapore dollar
XOR: http://dbpedia.org/resource/Exclusive or
rule-based system: http://dbpedia.org/resource/Rule-based machine translati
on
nonlinear: http://dbpedia.org/resource/Nonlinear_system
stochastic: http://dbpedia.org/resource/Stochastic_optimization
Gallant: http://dbpedia.org/resource/Gallant_singer
ESN: http://dbpedia.org/resource/Electronic_serial_number
Artificial neural network: http://dbpedia.org/resource/Artificial_neural ne
twork
linear predictor function: http://dbpedia.org/resource/Linear predictor fun
ction
The algorithm: http://dbpedia.org/resource/The Algorithm
```

Spiking neural network: http://dbpedia.org/resource/Spiking neural network

```
linear model: http://dbpedia.org/resource/Linear model
maximum norm: http://dbpedia.org/resource/Uniform norm
History 2: http://dbpedia.org/resource/H2 A&E Networks
logistic regression: http://dbpedia.org/resource/Logistic regression
DBSCAN: http://dbpedia.org/resource/DBSCAN
multilayer perceptron: http://dbpedia.org/resource/Multilayer perceptron
NeurIPS: http://dbpedia.org/resource/Conference on Neural Information Proce
ssing Systems
ratchet: http://dbpedia.org/resource/Socket_wrench
classifiers: http://dbpedia.org/resource/Statistical classification
ArXiv: http://dbpedia.org/resource/ArXiv
Collins: http://dbpedia.org/resource/HarperCollins
GRU: http://dbpedia.org/resource/Gated recurrent unit
minimax: http://dbpedia.org/resource/Minimax
game-tree: http://dbpedia.org/resource/Game tree
game tree: http://dbpedia.org/resource/Game_tree
prune: http://dbpedia.org/resource/Decision tree pruning
prune: http://dbpedia.org/resource/Prune
H: http://dbpedia.org/resource/Hydrogen
alpha-beta pruning: http://dbpedia.org/resource/Alpha-beta pruning
complete game: http://dbpedia.org/resource/Complete game
Stratego: http://dbpedia.org/resource/Stratego
Zero-Sum Game: http://dbpedia.org/resource/Zero-sum_game
GB: http://dbpedia.org/resource/Gigabyte
Exhaustive search: http://dbpedia.org/resource/Brute-force search
RISC: http://dbpedia.org/resource/Reduced instruction set computer
The Prisoner: http://dbpedia.org/resource/The Prisoner
Perfect Information: http://dbpedia.org/resource/Perfect information
Battleship: http://dbpedia.org/resource/Battleship
```

Ke Jie: http://dbpedia.org/resource/Ke_Jie

Backgammon: http://dbpedia.org/resource/Backgammon

Pruning: http://dbpedia.org/resource/Pruning

Nim: http://dbpedia.org/resource/Nim

EXPECTIMINIMAX: http://dbpedia.org/resource/Expectiminimax

five-game match: http://dbpedia.org/resource/AlphaGo_versus_Lee_Sedol

Deep Junior: http://dbpedia.org/resource/Junior chess

Monte Carlo tree search: http://dbpedia.org/resource/Monte_Carlo_tree_searc

h

Marion Tinsley: http://dbpedia.org/resource/Marion_Tinsley

Monopoly: http://dbpedia.org/resource/Monopoly

AlphaGo Zero: http://dbpedia.org/resource/AlphaGo_Zero

Lee Se-dol: http://dbpedia.org/resource/Lee_Sedol

VLSI: http://dbpedia.org/resource/Very_Large_Scale_Integration

Alberta: http://dbpedia.org/resource/Alberta

Tree traversal: http://dbpedia.org/resource/Tree_traversal

Connect 4: http://dbpedia.org/resource/Connect_Four

prunes: http://dbpedia.org/resource/Prune

checkmate: http://dbpedia.org/resource/Checkmate

infinity: http://dbpedia.org/resource/Infinity

negamax: http://dbpedia.org/resource/Negamax

game theory: http://dbpedia.org/resource/Game_theory

Alphabeta: http://dbpedia.org/resource/Alphabeta

beta: http://dbpedia.org/resource/Beta_distribution

principal variation: http://dbpedia.org/resource/Variation_game_tree

Alpha - beta pruning: http://dbpedia.org/resource/Alpha - beta_pruning

graph algorithms: http://dbpedia.org/resource/Graph theory

optimization: http://dbpedia.org/resource/Mathematical optimization

Chess: http://dbpedia.org/resource/Chess

randomized algorithm: http://dbpedia.org/resource/Randomized algorithm

root: http://dbpedia.org/resource/Zero of a function

```
Flickr: http://dbpedia.org/resource/Flickr
Metafiction: http://dbpedia.org/resource/Metafiction
SKOS: http://dbpedia.org/resource/Simple Knowledge Organization System
Concordia University: http://dbpedia.org/resource/Main Page
Concordia University: http://dbpedia.org/resource/Concordia University
Semantic relations: http://dbpedia.org/resource/Ontology components
syntax: http://dbpedia.org/resource/Syntax
Computer Science: http://dbpedia.org/resource/Computer science
bridge: http://dbpedia.org/resource/Contract_bridge
ISO: http://dbpedia.org/resource/International Organization for Standardiza
tion
Json: http://dbpedia.org/resource/JSON
ACM: http://dbpedia.org/resource/Association for Computing Machinery
thesauri: http://dbpedia.org/resource/Thesaurus
Unicode: http://dbpedia.org/resource/Unicode
London: http://dbpedia.org/resource/London
ghostwriter: http://dbpedia.org/resource/Ghostwriter
RDF Triple: http://dbpedia.org/resource/Semantic_triple
Concordia: http://dbpedia.org/resource/Concordia_University
intelligent agent: http://dbpedia.org/resource/Intelligent agent
Web Ontology Language: http://dbpedia.org/resource/Web Ontology Language
Europe: http://dbpedia.org/resource/Europe
parser: http://dbpedia.org/resource/Parsing
blender: http://dbpedia.org/resource/Blender
gzip: http://dbpedia.org/resource/Gzip
Skype: http://dbpedia.org/resource/Skype
Orinoco: http://dbpedia.org/resource/Orinoco
NUM: http://dbpedia.org/resource/National_Union_of_Mineworkers_Great_Britai
```

chatbots: http://dbpedia.org/resource/Chatbot

```
Microsoft: http://dbpedia.org/resource/Microsoft
OEM: http://dbpedia.org/resource/Original equipment manufacturer
AIML: http://dbpedia.org/resource/AIML
aiml: http://dbpedia.org/resource/All-India Muslim League
cosine: http://dbpedia.org/resource/Trigonometric functions
clf: http://dbpedia.org/resource/Chlorine monofluoride
Amazon Lex: http://dbpedia.org/resource/Amazon Lex
McGill: http://dbpedia.org/resource/McGill University
Rasa: http://dbpedia.org/resource/Saint_Jonas'_Festival
wine: http://dbpedia.org/resource/Wine
cloud: http://dbpedia.org/resource/Cloud computing
Pandorabots: http://dbpedia.org/resource/Pandorabots
Kitchen Aid: http://dbpedia.org/resource/KitchenAid
Whirlpool: http://dbpedia.org/resource/Whirlpool Corporation
vendor lock-in: http://dbpedia.org/resource/Vendor lock-in
genus: http://dbpedia.org/resource/Genus
cat food: http://dbpedia.org/resource/Cat food
Syntactic Structures: http://dbpedia.org/resource/Syntactic_Structures
James Pustejovsky: http://dbpedia.org/resource/James_Pustejovsky
PUNCT: http://dbpedia.org/resource/Punct magazine
tomato sauce: http://dbpedia.org/resource/Tomato sauce
BRENDA: http://dbpedia.org/resource/BRENDA
regular expressions: http://dbpedia.org/resource/Regular_expression
Caribbean Series: http://dbpedia.org/resource/Caribbean_Series
Aspergillus: http://dbpedia.org/resource/Aspergillus
Denver: http://dbpedia.org/resource/Denver
Determiner: http://dbpedia.org/resource/Determiner
Mexico: http://dbpedia.org/resource/Mexico
Organism: http://dbpedia.org/resource/Organism
```

Treebank: http://dbpedia.org/resource/Treebank

```
metadata: http://dbpedia.org/resource/Metadata
fantasy: http://dbpedia.org/resource/Fantasy
BRaunschweig: http://dbpedia.org/resource/Braunschweig
Martin: http://dbpedia.org/resource/Glenn L. Martin Company
FSTs: http://dbpedia.org/resource/Scottish Tartans Society
Eastern Orthodox: http://dbpedia.org/resource/Eastern Orthodox Church
Chapter 11: http://dbpedia.org/resource/Chapter 11, Title 11, United States
Code
EOS: http://dbpedia.org/resource/Asteroid_family
Daniel Jurafsky: http://dbpedia.org/resource/Daniel Jurafsky
Enzyme: http://dbpedia.org/resource/Enzyme
R&D: http://dbpedia.org/resource/Research_and_development
Preposition: http://dbpedia.org/resource/Preposition and postposition
finite-state machine: http://dbpedia.org/resource/Finite-state machine
confidentiality: http://dbpedia.org/resource/Confidentiality
noun: http://dbpedia.org/resource/Noun
Lucene: http://dbpedia.org/resource/Apache Lucene
wild type: http://dbpedia.org/resource/Wild type
NEs: http://dbpedia.org/resource/Nintendo_Entertainment_System
pipeline: http://dbpedia.org/resource/Pipeline transport
Pronoun: http://dbpedia.org/resource/Pronoun
affinity chromatography: http://dbpedia.org/resource/Affinity chromatograph
knowledge discovery: http://dbpedia.org/resource/Knowledge_extraction
Text Mining: http://dbpedia.org/resource/Text mining
spaCy: http://dbpedia.org/resource/SpaCy
logic: http://dbpedia.org/resource/Logic
dividend: http://dbpedia.org/resource/Dividend
city: http://dbpedia.org/resource/City
```

Beginners: http://dbpedia.org/resource/Beginners

```
SpaCy: http://dbpedia.org/resource/SpaCy
```

dollar sign: http://dbpedia.org/resource/Dollar sign

API Key: http://dbpedia.org/resource/Application_programming_interface_key

FR: http://dbpedia.org/resource/Flag_of_France

basics: http://dbpedia.org/resource/British_Association_for_Immediate_Care

JSON: http://dbpedia.org/resource/JSON

proper noun: http://dbpedia.org/resource/Proper_noun

Regular Expressions: http://dbpedia.org/resource/Regular_expression

LinkedIn: http://dbpedia.org/resource/LinkedIn

McGill University: http://dbpedia.org/resource/McGill University

Facebook: http://dbpedia.org/resource/Facebook

TBox: http://dbpedia.org/resource/Tbox

Knowledge Navigator: http://dbpedia.org/resource/Knowledge_Navigator

metamorphosis: http://dbpedia.org/resource/Metamorphosis

YouTube: http://dbpedia.org/resource/YouTube

Stuart Russell: http://dbpedia.org/resource/Stuart_J._Russell

ecosystem: http://dbpedia.org/resource/Ecosystem

CLOUD: http://dbpedia.org/resource/CLOUD experiment

skolemization: http://dbpedia.org/resource/Skolem_normal_form

GeoNames: http://dbpedia.org/resource/GeoNames

WWW: http://dbpedia.org/resource/World_Wide_Web

RN10: http://dbpedia.org/resource/Route_nationale_10

WordNet: http://dbpedia.org/resource/WordNet

OWL: http://dbpedia.org/resource/Web Ontology Language

social media: http://dbpedia.org/resource/Social media

DeepDive: http://dbpedia.org/resource/Transformers

Apple: http://dbpedia.org/resource/Apple_Inc.

MAX: http://dbpedia.org/resource/MAX_Light_Rail

Leonardo da Vinci: http://dbpedia.org/resource/Leonardo_da_Vinci

reification: http://dbpedia.org/resource/Abstract_and_concrete

```
Jena: http://dbpedia.org/resource/Jena
file path: http://dbpedia.org/resource/Path computing
Java: http://dbpedia.org/resource/Java
subtraction: http://dbpedia.org/resource/Subtraction
Paris Hilton: http://dbpedia.org/resource/Paris Hilton
spruce: http://dbpedia.org/resource/Spruce
Hilton: http://dbpedia.org/resource/Hilton Worldwide
Windows: http://dbpedia.org/resource/Microsoft Windows
MacOS: http://dbpedia.org/resource/MacOS
whitelist: http://dbpedia.org/resource/Whitelisting
application layer: http://dbpedia.org/resource/Application layer
Sir George Williams University: http://dbpedia.org/resource/Sir George Will
iams University
Linux: http://dbpedia.org/resource/Linux
Github: http://dbpedia.org/resource/GitHub
Pablo Picasso: http://dbpedia.org/resource/Pablo_Picasso
P18: http://dbpedia.org/resource/Type 056 corvette
wdt: http://dbpedia.org/resource/West Digital Television
Moodle: http://dbpedia.org/resource/Moodle
API key: http://dbpedia.org/resource/Application programming interface key
Spotlight: http://dbpedia.org/resource/The Boston Globe
Quebec: http://dbpedia.org/resource/Quebec
Docker: http://dbpedia.org/resource/Stevedore
Fuseki: http://dbpedia.org/resource/Fuseki
EU: http://dbpedia.org/resource/European Union
Open Graph Protocol: http://dbpedia.org/resource/Facebook Platform
OpenCalais: http://dbpedia.org/resource/Calais Reuters product
Meat Loaf: http://dbpedia.org/resource/Meat Loaf
Whippomorpha: http://dbpedia.org/resource/Whippomorpha
```

pry: http://dbpedia.org/resource/Paraguayan Rugby Union

```
sprocket: http://dbpedia.org/resource/Sprocket
Wyatt: http://dbpedia.org/resource/Wyatt Earp
Mexico City: http://dbpedia.org/resource/Mexico City
news satire: http://dbpedia.org/resource/News satire
data visualization: http://dbpedia.org/resource/Data visualization
lightning: http://dbpedia.org/resource/Lightning
taxonomies: http://dbpedia.org/resource/Taxonomy for search engines
WordPress.com: http://dbpedia.org/resource/WordPress.com
Thornton: http://dbpedia.org/resource/Billy_Bob_Thornton
Eine kleine Nachtmusik: http://dbpedia.org/resource/Eine kleine Nachtmusik
Accra: http://dbpedia.org/resource/Accra
Virginia: http://dbpedia.org/resource/University_of_Virginia
Media Bias/Fact Check: http://dbpedia.org/resource/Fact Check
homicide: http://dbpedia.org/resource/Homicide
Kat: http://dbpedia.org/resource/Kat_Slater
language agnostic: http://dbpedia.org/resource/Language-independent_specifi
cation
Covid: http://dbpedia.org/resource/Coronavirus disease
Tokyo: http://dbpedia.org/resource/Tokyo
eurocentrism: http://dbpedia.org/resource/Eurocentrism
colorblind: http://dbpedia.org/resource/Color blindness
Alexa: http://dbpedia.org/resource/Amazon_Alexa
Alexa: http://dbpedia.org/resource/Alexa_Internet
Atani: http://dbpedia.org/resource/Atani
Elisabeth: http://dbpedia.org/resource/Empress Elisabeth of Austria
decapitation: http://dbpedia.org/resource/Decapitation
Ghana: http://dbpedia.org/resource/Ghana
manager: http://dbpedia.org/resource/Management
coronavirus: http://dbpedia.org/resource/Coronavirus
```

Liam: http://dbpedia.org/resource/Liam Gallagher

hashtag: http://dbpedia.org/resource/Hashtag

EJC: http://dbpedia.org/resource/European_Journalism_Centre

species: http://dbpedia.org/resource/Species

Poland: http://dbpedia.org/resource/Poland

data journalism: http://dbpedia.org/resource/Data_journalism

computing platform: http://dbpedia.org/resource/Computing platform

taxa: http://dbpedia.org/resource/Taxon

software engineer: http://dbpedia.org/resource/Software_engineering

Goldings: http://dbpedia.org/resource/Goldings_estate

NPR: http://dbpedia.org/resource/NPR

metropolitan area: http://dbpedia.org/resource/Metropolitan area

train station: http://dbpedia.org/resource/Train_station

error detection: http://dbpedia.org/resource/Error_detection_and_correction

TechCrunch: http://dbpedia.org/resource/TechCrunch

CC BY-SA: http://dbpedia.org/resource/Creative Commons license

eThekwini: http://dbpedia.org/resource/EThekwini_Metropolitan_Municipality

Tunisia: http://dbpedia.org/resource/Tunisia

ontologist: http://dbpedia.org/resource/Ontology

Mozart: http://dbpedia.org/resource/Wolfgang_Amadeus_Mozart

relational database management system: http://dbpedia.org/resource/Relation

al_database

Mumbai: http://dbpedia.org/resource/Mumbai

heritage: http://dbpedia.org/resource/Cultural_heritage

semantic query: http://dbpedia.org/resource/Semantic_query

OCLC: http://dbpedia.org/resource/OCLC

The takeaway: http://dbpedia.org/resource/The Takeaway

Congress: http://dbpedia.org/resource/United States Congress

momentum: http://dbpedia.org/resource/Momentum

census: http://dbpedia.org/resource/United States Census

```
Yale University Library: http://dbpedia.org/resource/Yale University Librar
У
Barrett: http://dbpedia.org/resource/Stephen Barrett
acronym: http://dbpedia.org/resource/Recursive acronym
French Wikipedia: http://dbpedia.org/resource/French Wikipedia
Winny de Jong: http://dbpedia.org/resource/Winny de Jong
standard language: http://dbpedia.org/resource/Standard language
Wikimania: http://dbpedia.org/resource/Wikimania
Nyanja: http://dbpedia.org/resource/Chewa_language
Crimea: http://dbpedia.org/resource/Crimea
femicide: http://dbpedia.org/resource/Femicide
hate speech: http://dbpedia.org/resource/Hate_speech
Infowars: http://dbpedia.org/resource/InfoWars
Bibliotech: http://dbpedia.org/resource/BiblioTech Bexar County
Sadat: http://dbpedia.org/resource/Anwar Sadat
Scholia: http://dbpedia.org/resource/Scholia
journalism: http://dbpedia.org/resource/Journalism
FAQ: http://dbpedia.org/resource/FAQ
cookie: http://dbpedia.org/resource/HTTP_cookie
Sudan: http://dbpedia.org/resource/Sudan
Dagbani: http://dbpedia.org/resource/Dagbani language
Wiki Education Foundation: http://dbpedia.org/resource/Wiki Education Found
ation
communication: http://dbpedia.org/resource/Communication
barcode: http://dbpedia.org/resource/Barcode
telling stories: http://dbpedia.org/resource/Telling Stories
fake news: http://dbpedia.org/resource/Fake news website
mayor: http://dbpedia.org/resource/Mayor
SQL: http://dbpedia.org/resource/SQL
```

Helsinki: http://dbpedia.org/resource/Helsinki

```
non-profit organization: http://dbpedia.org/resource/Nonprofit organization
Turkey: http://dbpedia.org/resource/Turkey
hyperlink: http://dbpedia.org/resource/Hyperlink
Taiwan: http://dbpedia.org/resource/Taiwan
investigative journalism: http://dbpedia.org/resource/Investigative journal
ism
Ontology: http://dbpedia.org/resource/Ontology
O' Reilly Media: http://dbpedia.org/resource/O'Reilly Media
Freebase: http://dbpedia.org/resource/Freebase
Knowledge Management: http://dbpedia.org/resource/Knowledge management
Frey: http://dbpedia.org/resource/Richard Karl Hjalmar Frey
Q5: http://dbpedia.org/resource/Audi Q5
spa: http://dbpedia.org/resource/Spa
microdata: http://dbpedia.org/resource/Microdata statistics
BabelNet: http://dbpedia.org/resource/BabelNet
Arity: http://dbpedia.org/resource/Arity
HTTP: http://dbpedia.org/resource/Hypertext Transfer Protocol
tem: http://dbpedia.org/resource/Transmission electron microscopy
Dieter Fensel: http://dbpedia.org/resource/Dieter_Fensel
Hellmann: http://dbpedia.org/resource/Gustav Hellmann
RDB: http://dbpedia.org/resource/Oracle_Rdb
Design Issues: http://dbpedia.org/resource/Design_Issues
MusicBrainz: http://dbpedia.org/resource/MusicBrainz
OPE: http://dbpedia.org/resource/Ope
Data integration: http://dbpedia.org/resource/Data integration
Gensim: http://dbpedia.org/resource/Gensim
gold standard: http://dbpedia.org/resource/Gold standard
named entity: http://dbpedia.org/resource/Named-entity recognition
```

lemmas: http://dbpedia.org/resource/Spikelet

word vectors: http://dbpedia.org/resource/Word embedding

```
Sir George Williams: http://dbpedia.org/resource/Sir George Williams Univer
sity
standard deviation: http://dbpedia.org/resource/Standard deviation
Convolution: http://dbpedia.org/resource/Convolution
ACL: http://dbpedia.org/resource/Association for Computational Linguistics
kernel: http://dbpedia.org/resource/Linux kernel
Grayscale: http://dbpedia.org/resource/Grayscale
Holmes: http://dbpedia.org/resource/Sherlock Holmes
Batch Normalization: http://dbpedia.org/resource/Batch_normalization
gamma: http://dbpedia.org/resource/Gamma distribution
Augustus: http://dbpedia.org/resource/Augustus
Jeremy Brett: http://dbpedia.org/resource/Jeremy Brett
Word Vectors: http://dbpedia.org/resource/Word embedding
regularization: http://dbpedia.org/resource/Regularization mathematics
Adam: http://dbpedia.org/resource/Adam
automobile: http://dbpedia.org/resource/Car
Simple Way: http://dbpedia.org/resource/The Simple Way
puffy: http://dbpedia.org/resource/Puffy AmiYumi
covariance: http://dbpedia.org/resource/Covariance
Neuron: http://dbpedia.org/resource/Neuron
Blackmailer: http://dbpedia.org/resource/Vincent Clarkson
Computational Linguistics: http://dbpedia.org/resource/Computational lingui
stics
vanilla: http://dbpedia.org/resource/Vanilla
A 3: http://dbpedia.org/resource/Bundesautobahn 3
DL: http://dbpedia.org/resource/Deputy lieutenant
Deep Learning: http://dbpedia.org/resource/Deep learning
NumPy: http://dbpedia.org/resource/NumPy
MovieLens: http://dbpedia.org/resource/MovieLens
```

Lego: http://dbpedia.org/resource/Lego

```
Toy Story 2: http://dbpedia.org/resource/Toy_Story_2
Recommender Systems: http://dbpedia.org/resource/Recommender_system
```

protip: http://dbpedia.org/resource/GamePro

coefficient: http://dbpedia.org/resource/Coefficient

magnitude: http://dbpedia.org/resource/Apparent_magnitude

CAESAR: http://dbpedia.org/resource/CAESAR_self-propelled_howitzer

BRUTUS: http://dbpedia.org/resource/Brutus_the_Younger

Metadata: http://dbpedia.org/resource/Metadata

Open knowledge: http://dbpedia.org/resource/Open_knowledge

Alag: http://dbpedia.org/resource/Alag

mathematical model: http://dbpedia.org/resource/Mathematical model

John Berryman: http://dbpedia.org/resource/John_Berryman

The recall: http://dbpedia.org/resource/The_Recall

Internet: http://dbpedia.org/resource/Internet

GitHub: http://dbpedia.org/resource/GitHub

Gartner: http://dbpedia.org/resource/Gartner

Explainable AI: http://dbpedia.org/resource/Explainable_artificial_intellig

ence

Solr: http://dbpedia.org/resource/Apache Solr

Full-text search: http://dbpedia.org/resource/Full-text_search

Weizenbaum: http://dbpedia.org/resource/Joseph_Weizenbaum

CAGR: http://dbpedia.org/resource/Compound_annual_growth_rate

Refinitiv: http://dbpedia.org/resource/Refinitiv

mature technology: http://dbpedia.org/resource/Mature_technology

SaaS: http://dbpedia.org/resource/Software_as_a_service

Microsoft Cortana: http://dbpedia.org/resource/Cortana

Thing: http://dbpedia.org/resource/Frightful Four

Microsoft Tay: http://dbpedia.org/resource/Tay bot

MIT: http://dbpedia.org/resource/Massachusetts Institute of Technology

POWER7: http://dbpedia.org/resource/POWER7

init: http://dbpedia.org/resource/Init

Smallville: http://dbpedia.org/resource/Smallville

Superman: http://dbpedia.org/resource/Superman

Metropolis: http://dbpedia.org/resource/Metropolis

U.K.: http://dbpedia.org/resource/United Kingdom

Krypton: http://dbpedia.org/resource/Krypton

GPE: http://dbpedia.org/resource/GPE_Palmtop_Environment

Lex Luthor: http://dbpedia.org/resource/Lex_Luthor

Lois: http://dbpedia.org/resource/Lois_Lane

Python: http://dbpedia.org/resource/Pythonidae

Matplotlib: http://dbpedia.org/resource/Matplotlib

integer: http://dbpedia.org/resource/Integer

Perry White: http://dbpedia.org/resource/Perry White

Earth: http://dbpedia.org/resource/Earth

Chicago: http://dbpedia.org/resource/Chicago

editor-in-chief: http://dbpedia.org/resource/Editor-in-chief

WhatsApp: http://dbpedia.org/resource/WhatsApp

Martha Kent: http://dbpedia.org/resource/Jonathan and Martha Kent

Softmax: http://dbpedia.org/resource/Softmax_function

Pros & Cons: http://dbpedia.org/resource/Pros_&_Cons

soccer: http://dbpedia.org/resource/Association_football

gensim: http://dbpedia.org/resource/Gensim

sailboat: http://dbpedia.org/resource/Sailboat

snow: http://dbpedia.org/resource/Snow

skip-gram: http://dbpedia.org/resource/N-gram

PCA: http://dbpedia.org/resource/Principal component analysis

yeti: http://dbpedia.org/resource/Yeti

LOTR: http://dbpedia.org/resource/The Lord of the Rings

Chatbot: http://dbpedia.org/resource/Chatbot

Sushi: http://dbpedia.org/resource/Sushi

corpora: http://dbpedia.org/resource/Text corpus

Harry Potter: http://dbpedia.org/resource/Harry_Potter

Louis Pasteur: http://dbpedia.org/resource/Louis_Pasteur

Japan: http://dbpedia.org/resource/Japan

cross-entropy: http://dbpedia.org/resource/Cross_entropy

Monet: http://dbpedia.org/resource/Claude_Monet

Fasttext: http://dbpedia.org/resource/FastText

New York: http://dbpedia.org/resource/New_York_City

physics: http://dbpedia.org/resource/Physics

diabetes: http://dbpedia.org/resource/Diabetes

Pima: http://dbpedia.org/resource/Pima people

France: http://dbpedia.org/resource/France

sand: http://dbpedia.org/resource/Sand

Elvis: http://dbpedia.org/resource/Elvis Presley

homo economicus: http://dbpedia.org/resource/Homo economicus

Germany: http://dbpedia.org/resource/Nazi_Germany

insulin: http://dbpedia.org/resource/Insulin

NSF: http://dbpedia.org/resource/National Science Foundation

Paradise Papers: http://dbpedia.org/resource/Paradise_Papers

Wikileaks: http://dbpedia.org/resource/WikiLeaks

Guantanamo Bay: http://dbpedia.org/resource/Guantanamo_Bay_detention_camp

Enron: http://dbpedia.org/resource/Enron

data analysis: http://dbpedia.org/resource/Data_analysis

CIA: http://dbpedia.org/resource/Central_Intelligence_Agency

Cambridge Analytica: http://dbpedia.org/resource/Cambridge Analytica

Elasticsearch: http://dbpedia.org/resource/Elasticsearch

Usenet: http://dbpedia.org/resource/Usenet

newsgroup: http://dbpedia.org/resource/Usenet newsgroup

NuBus: http://dbpedia.org/resource/NuBus

alt. atheism: http://dbpedia.org/resource/Alt.atheism

```
question!: http://dbpedia.org/resource/Question!
recommender systems: http://dbpedia.org/resource/Recommender system
SOAP: http://dbpedia.org/resource/SOAP
frbr: http://dbpedia.org/resource/Functional Requirements for Bibliographic
Records
Geonames: http://dbpedia.org/resource/GeoNames
protocol: http://dbpedia.org/resource/Communication protocol
Poetry: http://dbpedia.org/resource/Poetry
ontology: http://dbpedia.org/resource/Ontology
LP: http://dbpedia.org/resource/Album
XHTML: http://dbpedia.org/resource/XHTML
mathematical notation: http://dbpedia.org/resource/Mathematical_notation
N-Quads: http://dbpedia.org/resource/N-Triples
POST: http://dbpedia.org/resource/Power-on self-test
ec: http://dbpedia.org/resource/EC programming language
Wordpress.com: http://dbpedia.org/resource/WordPress.com
biological pathway: http://dbpedia.org/resource/Biological pathway
BioPAX: http://dbpedia.org/resource/BioPAX
chmod: http://dbpedia.org/resource/Chmod
Siri: http://dbpedia.org/resource/Siri
JDK: http://dbpedia.org/resource/Java Development Kit
Q1a: http://dbpedia.org/resource/Haplogroup_Q-M242
Westworld: http://dbpedia.org/resource/Westworld
DFA: http://dbpedia.org/resource/Deterministic_finite_automaton
Ingersoll: http://dbpedia.org/resource/Robert G. Ingersoll
A. L. I. C. E.: http://dbpedia.org/resource/Artificial_Linguistic_Internet_Comp
uter Entity
Smart: http://dbpedia.org/resource/Smart Communications
Open standard: http://dbpedia.org/resource/Open standard
```

Activision: http://dbpedia.org/resource/Activision

BOT: http://dbpedia.org/resource/Build-operate-transfer

HBO: http://dbpedia.org/resource/HBO

API.ai: http://dbpedia.org/resource/Dialogflow

Dialog: http://dbpedia.org/resource/ProQuest_Dialog

Resident Evil: http://dbpedia.org/resource/Resident_Evil

Artificial Intelligence Markup Language: http://dbpedia.org/resource/AIML

Use Case: http://dbpedia.org/resource/Use_case

Cimiano: http://dbpedia.org/resource/Cimiano

vertical bar: http://dbpedia.org/resource/Vertical_bar

Zootopia: http://dbpedia.org/resource/Zootopia

postback: http://dbpedia.org/resource/Postback

YOH: http://dbpedia.org/resource/Young_Out_Here

Sony: http://dbpedia.org/resource/Sony

Mitsuki: http://dbpedia.org/resource/Mitsuki Naruto

Google Search: http://dbpedia.org/resource/Google Search

World Wide Web: http://dbpedia.org/resource/World_Wide_Web

Morton: http://dbpedia.org/resource/Greenock Morton F.C.

ROSA: http://dbpedia.org/resource/ROSA

regressor: http://dbpedia.org/resource/Dependent_and_independent_variables

TF-IDF: http://dbpedia.org/resource/Tf-idf

3. which course teaches a knowledge graph?

COMP6741 Intelligent Systems introduces 12 times

COMP6721 Introduction to Artificial Intelligence introduces 4 times

4. which topics are covered in COMP 6721?

Inverse: http://dbpedia.org/resource/Multiplicative_inverse in slidel1: fil

e:///c:/unibot/comp6721/Slides/slide11.pdf

```
XML: http://dbpedia.org/resource/XML in slide11: file:///c:/unibot/comp6721
/Slides/slidell.pdf
Manning Publications: http://dbpedia.org/resource/Manning Publications in s
lidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf
open source: http://dbpedia.org/resource/Open-source software in slidel1: f
ile:///c:/unibot/comp6721/Slides/slide11.pdf
open-source: http://dbpedia.org/resource/Open-source software in slidel1: f
ile:///c:/unibot/comp6721/Slides/slide11.pdf
algorithm: http://dbpedia.org/resource/Algorithm in slidell: file:///c:/uni
bot/comp6721/Slides/slide11.pdf
case law: http://dbpedia.org/resource/Case law in slidel1: file:///c:/unibo
t/comp6721/Slides/slide11.pdf
GATE: http://dbpedia.org/resource/Graduate Aptitude Test in Engineering in
slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf
GATE: http://dbpedia.org/resource/General_Architecture_for_Text_Engineering
in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf
Macbeth: http://dbpedia.org/resource/Macbeth in slidell: file:///c:/unibot/
comp6721/Slides/slide11.pdf
UK: http://dbpedia.org/resource/United Kingdom in slidel1: file:///c:/unibo
t/comp6721/Slides/slide11.pdf
POS: http://dbpedia.org/resource/Point of sale in slidel1: file:///c:/unibo
t/comp6721/Slides/slide11.pdf
POS: http://dbpedia.org/resource/Part_of_speech in slide11: file:///c:/unib
ot/comp6721/Slides/slide11.pdf
Morphological Analysis: http://dbpedia.org/resource/Morphological analysis
problem-solving in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf
lemma: http://dbpedia.org/resource/Spikelet in slidell: file:///c:/unibot/c
```

PDF: http://dbpedia.org/resource/PDF in slide11: file:///c:/unibot/comp6721

omp6721/Slides/slide11.pdf

/Slides/slidell.pdf

```
incidence: http://dbpedia.org/resource/Incidence_matrix in slide11: file://
/c:/unibot/comp6721/Slides/slide11.pdf
```

Anthony Julius: http://dbpedia.org/resource/Anthony_Julius in slidell: fil e:///c:/unibot/comp6721/Slides/slidell.pdf

Natural Language Processing (NLP): http://dbpedia.org/resource/Natural_language_processing in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf insurance: http://dbpedia.org/resource/Insurance in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf

Brutus: http://dbpedia.org/resource/Brutus_the_Younger in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

lengths: http://dbpedia.org/resource/Horse_length in slidell: file:///c:/un ibot/comp6721/Slides/slidell.pdf

lengths: http://dbpedia.org/resource/Length in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

Apache: http://dbpedia.org/resource/The_Apache_Software_Foundation in slide 11: file:///c:/unibot/comp6721/Slides/slide11.pdf

Apache: http://dbpedia.org/resource/Apache_HTTP_Server in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf

database: http://dbpedia.org/resource/Database in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf

Prabhakar Raghavan: http://dbpedia.org/resource/Prabhakar_Raghavan in slide 11: file:///c:/unibot/comp6721/Slides/slide11.pdf

Caesar: http://dbpedia.org/resource/Julius_Caesar in slidel1: file:///c:/un ibot/comp6721/Slides/slidel1.pdf

Hamlet: http://dbpedia.org/resource/Hamlet in slidell: file:///c:/unibot/comp6721/Slides/slidell.pdf

L2 norm: http://dbpedia.org/resource/Lp_space in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

Wuthering Heights: http://dbpedia.org/resource/Wuthering_Heights in slidel 1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

```
dog: http://dbpedia.org/resource/Dog in slidell: file:///c:/unibot/comp6721
/Slides/slidell.pdf
IBM: http://dbpedia.org/resource/IBM in slide11: file:///c:/unibot/comp6721
/Slides/slidell.pdf
verb: http://dbpedia.org/resource/Verb in slidel1: file:///c:/unibot/comp67
21/Slides/slide11.pdf
HTML: http://dbpedia.org/resource/HTML in slidell: file:///c:/unibot/comp67
21/Slides/slide11.pdf
high-dimensional space: http://dbpedia.org/resource/Dimension in slidell: f
ile:///c:/unibot/comp6721/Slides/slide11.pdf
inflection: http://dbpedia.org/resource/Inflection in slidel1: file:///c:/u
nibot/comp6721/Slides/slide11.pdf
Sheffield: http://dbpedia.org/resource/Sheffield in slidell: file:///c:/uni
bot/comp6721/Slides/slide11.pdf
dft: http://dbpedia.org/resource/Discrete_Fourier_transform in slidel1: fil
e:///c:/unibot/comp6721/Slides/slide11.pdf
cyclohexanedione: http://dbpedia.org/resource/Cyclohexanedione in slidell:
file:///c:/unibot/comp6721/Slides/slide11.pdf
PyTorch: http://dbpedia.org/resource/PyTorch in slidell: file:///c:/unibot/
comp6721/Slides/slide11.pdf
Othello: http://dbpedia.org/resource/Othello in slidell: file:///c:/unibot/
comp6721/Slides/slide11.pdf
Information Extraction: http://dbpedia.org/resource/Information_extraction
in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf
Calpurnia: http://dbpedia.org/resource/Calpurnia wife of Caesar in slidell:
file:///c:/unibot/comp6721/Slides/slide11.pdf
fMLP: http://dbpedia.org/resource/N-Formylmethionine-leucyl-phenylalanine i
n slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf
UIMA: http://dbpedia.org/resource/UIMA in slidell: file:///c:/unibot/comp67
```

21/Slides/slide11.pdf

```
POS tags: http://dbpedia.org/resource/Brown_Corpus in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf
```

LGPL: http://dbpedia.org/resource/GNU_Lesser_General_Public_License in slid ell: file:///c:/unibot/comp6721/Slides/slidell.pdf

NLTK: http://dbpedia.org/resource/Natural_Language_Toolkit in slidel1: fil e:///c:/unibot/comp6721/Slides/slidel1.pdf

plagiarism: http://dbpedia.org/resource/Plagiarism in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

Keras: http://dbpedia.org/resource/Keras in slidel1: file:///c:/unibot/comp
6721/Slides/slidel1.pdf

VSM: http://dbpedia.org/resource/Vishisht_Seva_Medal in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

qi: http://dbpedia.org/resource/Qi in slidel1: file:///c:/unibot/comp6721/S lides/slidel1.pdf

Cleopatra: http://dbpedia.org/resource/Cleopatra in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf

lexicon: http://dbpedia.org/resource/Lexicon in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

Tokenization: http://dbpedia.org/resource/Lexical_analysis in slidel1: fil e:///c:/unibot/comp6721/Slides/slide11.pdf

JAPE: http://dbpedia.org/resource/Computational_humor in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

Max: http://dbpedia.org/resource/Comet_Man in slide11: file:///c:/unibot/comp6721/Slides/slide11.pdf

Max: http://dbpedia.org/resource/Max_Branning in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

word segmentation: http://dbpedia.org/resource/Text_segmentation in slide1
1: file:///c:/unibot/comp6721/Slides/slide11.pdf

Schütze: http://dbpedia.org/resource/Schütze in slidel1: file:///c:/unibot/comp6721/Slides/slidel1.pdf

```
grammar: http://dbpedia.org/resource/Grammar in slidell: file:///c:/unibot/
comp6721/Slides/slide11.pdf
grammar: http://dbpedia.org/resource/Formal grammar in slidel1: file:///c:/
unibot/comp6721/Slides/slide11.pdf
Stanford: http://dbpedia.org/resource/Stanford University in slidell: file:
///c:/unibot/comp6721/Slides/slide11.pdf
unit sphere: http://dbpedia.org/resource/Unit sphere in slidel1: file:///c:
/unibot/comp6721/Slides/slide11.pdf
Coreference: http://dbpedia.org/resource/Coreference in slidel1: file:///c:
/unibot/comp6721/Slides/slide11.pdf
Inverse: http://dbpedia.org/resource/Multiplicative inverse in worksheet10:
file:///c:/unibot/comp6721/Worksheet/worksheet10.pdf
pi: http://dbpedia.org/resource/Pi in worksheet10: file:///c:/unibot/comp67
21/Worksheet/worksheet10.pdf
dog: http://dbpedia.org/resource/Dog in worksheet10: file:///c:/unibot/comp
6721/Worksheet/worksheet10.pdf
NLP: http://dbpedia.org/resource/Natural language processing in worksheet1
0: file:///c:/unibot/comp6721/Worksheet/worksheet10.pdf
log10: http://dbpedia.org/resource/Common_logarithm in worksheet10: file://
/c:/unibot/comp6721/Worksheet/worksheet10.pdf
qi: http://dbpedia.org/resource/Qi in worksheet10: file:///c:/unibot/comp67
21/Worksheet/worksheet10.pdf
vectors: http://dbpedia.org/resource/Euclidean_vector in worksheet10: file:
///c:/unibot/comp6721/Worksheet/worksheet10.pdf
algorithm: http://dbpedia.org/resource/Algorithm in lab11: file:///c:/unibo
t/comp6721/Labs/Lab11.pdf
tf-idf: http://dbpedia.org/resource/Tf-idf in lab11: file:///c:/unibot/com
p6721/Labs/Lab11. pdf
named entities: http://dbpedia.org/resource/Named-entity recognition in lab
11: file:///c:/unibot/comp6721/Labs/Lab11.pdf
```

```
file:///c:/unibot/comp6721/Labs/Lab11.pdf
log2: http://dbpedia.org/resource/Binary logarithm in worksheet04: file:///
c:/unibot/comp6721/Worksheet/worksheet04.pdf
centroids: http://dbpedia.org/resource/Centroid in worksheet04: file:///c:/
unibot/comp6721/Worksheet/worksheet04.pdf
training data: http://dbpedia.org/resource/Training, validation, and test s
ets in worksheet04: file:///c:/unibot/comp6721/Worksheet/worksheet04.pdf
feature vector: http://dbpedia.org/resource/Feature_machine_learning in wor
ksheet04: file:///c:/unibot/comp6721/Worksheet/worksheet04.pdf
log10: http://dbpedia.org/resource/Common logarithm in worksheet04: file://
/c:/unibot/comp6721/Worksheet/worksheet04.pdf
F1: http://dbpedia.org/resource/Formula One in worksheet04: file:///c:/unib
ot/comp6721/Worksheet/worksheet04.pdf
calculator: http://dbpedia.org/resource/Calculator in worksheet04: file:///
c:/unibot/comp6721/Worksheet/worksheet04.pdf
k-means: http://dbpedia.org/resource/K-means clustering in worksheet04: fil
e:///c:/unibot/comp6721/Worksheet/worksheet04.pdf
Your Decision: http://dbpedia.org/resource/Your_Decision in worksheet04: fi
1e:///c:/unibot/comp6721/Worksheet/worksheet04.pdf
matplotlib: http://dbpedia.org/resource/Matplotlib in lab05: file:///c:/uni
bot/comp6721/Labs/Lab05.pdf
subset: http://dbpedia.org/resource/Subset in lab05: file:///c:/unibot/comp
6721/Labs/Lab05. pdf
centroids: http://dbpedia.org/resource/Centroid in lab05: file:///c:/unibot
/comp6721/Labs/Lab05.pdf
graph: http://dbpedia.org/resource/Graph database in lab05: file:///c:/unib
ot/comp6721/Labs/Lab05.pdf
graph: http://dbpedia.org/resource/Graph theory in lab05: file:///c:/unibot
/comp6721/Labs/Lab05.pdf
```

cosine similarity: http://dbpedia.org/resource/Cosine similarity in lab11:

```
golf: http://dbpedia.org/resource/Golf in lab05: file:///c:/unibot/comp6721
/Labs/Lab05. pdf
decision tree: http://dbpedia.org/resource/Decision tree in lab05: file:///
c:/unibot/comp6721/Labs/Lab05.pdf
training data: http://dbpedia.org/resource/Training, validation, and test s
ets in lab05: file:///c:/unibot/comp6721/Labs/Lab05.pdf
classifier: http://dbpedia.org/resource/Statistical classification in lab0
5: file:///c:/unibot/comp6721/Labs/Lab05.pdf
K-means: http://dbpedia.org/resource/K-means_clustering in lab05: file:///
c:/unibot/comp6721/Labs/Lab05.pdf
Graphviz: http://dbpedia.org/resource/Graphviz in lab05: file:///c:/unibot/
comp6721/Labs/Lab05. pdf
F1: http://dbpedia.org/resource/Formula One in lab05: file:///c:/unibot/com
p6721/Labs/Lab05. pdf
visualization: http://dbpedia.org/resource/Data visualization in lab05: fil
e:///c:/unibot/comp6721/Labs/Lab05.pdf
tree: http://dbpedia.org/resource/Tree in lab05: file:///c:/unibot/comp6721
/Labs/Lab05. pdf
fig: http://dbpedia.org/resource/Common fig in lab05: file:///c:/unibot/com
p6721/Labs/Lab05. pdf
sklearn: http://dbpedia.org/resource/Scikit-learn in lab05: file:///c:/unib
ot/comp6721/Labs/Lab05.pdf
Outlook: http://dbpedia.org/resource/Microsoft_Outlook in lab05: file:///c:
/unibot/comp6721/Labs/Lab05.pdf
feature space: http://dbpedia.org/resource/Feature machine learning in slid
e05: file:///c:/unibot/comp6721/Slides/slide05.pdf
Tom Mitchell: http://dbpedia.org/resource/Tom M. Mitchell in slide05: file:
///c:/unibot/comp6721/Slides/slide05.pdf
```

Intuition: http://dbpedia.org/resource/Intuition in slide05: file:///c:/uni

bot/comp6721/Slides/slide05.pdf

```
algorithm: http://dbpedia.org/resource/Algorithm in slide05: file:///c:/uni
bot/comp6721/Slides/slide05.pdf
medicine: http://dbpedia.org/resource/Medicine in slide05: file:///c:/unibo
t/comp6721/S1ides/s1ide05.pdf
cholera: http://dbpedia.org/resource/Cholera in slide05: file:///c:/unibot/
comp6721/S1ides/s1ide05.pdf
data acquisition: http://dbpedia.org/resource/Data acquisition in slide05:
file:///c:/unibot/comp6721/Slides/slide05.pdf
John Snow: http://dbpedia.org/resource/John_Snow in slide05: file:///c:/uni
bot/comp6721/Slides/slide05.pdf
F5: http://dbpedia.org/resource/Fujita scale in slide05: file:///c:/unibot/
comp6721/S1ides/s1ide05.pdf
Shannon: http://dbpedia.org/resource/River Shannon in slide05: file:///c:/u
nibot/comp6721/Slides/slide05.pdf
Ockham: http://dbpedia.org/resource/William of Ockham in slideO5: file:///
c:/unibot/comp6721/S1ides/s1ide05.pdf
decision tree: http://dbpedia.org/resource/Decision tree in slide05: file:/
//c:/unibot/comp6721/Slides/slide05.pdf
X6: http://dbpedia.org/resource/BMW X6 in slide05: file:///c:/unibot/comp67
21/Slides/slide05.pdf
probability: http://dbpedia.org/resource/Conditional probability in slide0
5: file:///c:/unibot/comp6721/Slides/slide05.pdf
probability: http://dbpedia.org/resource/Probability in slide05: file:///c:
/unibot/comp6721/Slides/slide05.pdf
Russell: http://dbpedia.org/resource/Bertrand Russell in slide05: file:///
c:/unibot/comp6721/Slides/slide05.pdf
TP: http://dbpedia.org/resource/Township Canada in slide05: file:///c:/unib
ot/comp6721/Slides/slide05.pdf
moustache: http://dbpedia.org/resource/Moustache in slide05: file:///c:/uni
```

bot/comp6721/Slides/slide05.pdf

```
Red Circle: http://dbpedia.org/resource/Dark_Circle_Comics in slide05: fil e:///c:/unibot/comp6721/Slides/slide05.pdf
```

Outliers: http://dbpedia.org/resource/Outlier in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

Essence: http://dbpedia.org/resource/Essence in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

vector: http://dbpedia.org/resource/Euclidean_vector in slide05: file:///c: /unibot/comp6721/Slides/slide05.pdf

vector: http://dbpedia.org/resource/Vector_space in slide05: file:///c:/uni bot/comp6721/Slides/slide05.pdf

Bayes Classifier: http://dbpedia.org/resource/Bayes_classifier in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

regression: http://dbpedia.org/resource/Regression_analysis in slide05: fil e:///c:/unibot/comp6721/Slides/slide05.pdf

physician: http://dbpedia.org/resource/Physician in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

inductive bias: http://dbpedia.org/resource/Inductive_bias in slide05: fil
e:///c:/unibot/comp6721/Slides/slide05.pdf

Time complexity: http://dbpedia.org/resource/Time_complexity in slide05: fi le:///c:/unibot/comp6721/Slides/slide05.pdf

F1: http://dbpedia.org/resource/Formula_One in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

X4: http://dbpedia.org/resource/CXCR4 in slide05: file:///c:/unibot/comp672 1/Slides/slide05.pdf

coin: http://dbpedia.org/resource/Coin in slide05: file:///c:/unibot/comp67
21/Slides/slide05.pdf

C4.5: http://dbpedia.org/resource/C4.5_algorithm in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

class F7: http://dbpedia.org/resource/Milwaukee_Road_class_F7 in slide05: f
ile:///c:/unibot/comp6721/Slides/slide05.pdf

```
disjoint sets: http://dbpedia.org/resource/Disjoint_sets in slide05: file:/
//c:/unibot/comp6721/Slides/slide05.pdf
```

Socrates: http://dbpedia.org/resource/Socrates in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

bass: http://dbpedia.org/resource/Bass_guitar in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

heuristics: http://dbpedia.org/resource/Heuristic in slide05: file:///c:/un ibot/comp6721/Slides/slide05.pdf

Type I error: http://dbpedia.org/resource/Type_I_and_type_II_errors in slid e05: file:///c:/unibot/comp6721/Slides/slide05.pdf

Essential Information: http://dbpedia.org/resource/Ralph_Nader in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

Alison: http://dbpedia.org/resource/Alison_DiLaurentis in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

Netflix: http://dbpedia.org/resource/Netflix in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

fair coin: http://dbpedia.org/resource/Fair_coin in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

HP Labs: http://dbpedia.org/resource/Hewlett-Packard in slide05: file:///c: /unibot/comp6721/Slides/slide05.pdf

k-means: http://dbpedia.org/resource/K-means_clustering in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

Voltaire: http://dbpedia.org/resource/Voltaire in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

Thai: http://dbpedia.org/resource/Thai_cuisine in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

class F4: http://dbpedia.org/resource/GER_Class_M15 in slide05: file:///c:/
unibot/comp6721/Slides/slide05.pdf

Nina: http://dbpedia.org/resource/Nina_Girado in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf

```
Red Square: http://dbpedia.org/resource/Red_Square in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf
salmon: http://dbpedia.org/resource/Salmon in slide05: file:///c:/unibot/comp6721/Slides/slide05.pdf
```

A5: http://dbpedia.org/resource/A5_road_Great_Britain in worksheet01: file: ///c:/unibot/comp6721/Worksheet/worksheet01.pdf

node: http://dbpedia.org/resource/Lunar_node in worksheet01: file:///c:/uni bot/comp6721/Worksheet/worksheet01.pdf

BA: http://dbpedia.org/resource/Bachelor_of_Arts in worksheet01: file:///c:/unibot/comp6721/Worksheet/worksheet01.pdf

The goal: http://dbpedia.org/resource/The_Goal_novel in worksheet01: file://c:/unibot/comp6721/Worksheet/worksheet01.pdf

CA: http://dbpedia.org/resource/California in worksheet01: file:///c:/unibot/comp6721/Worksheet/worksheet01.pdf

best-first: http://dbpedia.org/resource/Best-first_search in worksheet01: f ile:///c:/unibot/comp6721/Worksheet/worksheet01.pdf

branching factor: http://dbpedia.org/resource/Branching_factor in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf

Intuition: http://dbpedia.org/resource/Intuition in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf

algorithm: http://dbpedia.org/resource/Algorithm in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf

Sam Loyd: http://dbpedia.org/resource/Sam_Loyd in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf

chess: http://dbpedia.org/resource/Chess in slide02: file:///c:/unibot/comp 6721/Slides/slide02.pdf

Depth-limited Search: http://dbpedia.org/resource/Iterative_deepening_depth -first_search in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf Heuristics: http://dbpedia.org/resource/Heuristic in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf

```
shortest path: http://dbpedia.org/resource/Shortest path problem in slide0
2: file:///c:/unibot/comp6721/Slides/slide02.pdf
graph: http://dbpedia.org/resource/Graph database in slide02: file:///c:/un
ibot/comp6721/Slides/slide02.pdf
graph: http://dbpedia.org/resource/Graph theory in slide02: file:///c:/unib
ot/comp6721/Slides/slide02.pdf
Google: http://dbpedia.org/resource/Google in slide02: file:///c:/unibot/co
mp6721/S1ides/s1ide02.pdf
DFS: http://dbpedia.org/resource/Depth-first_search in slide02: file:///c:/
unibot/comp6721/Slides/slide02.pdf
big bang: http://dbpedia.org/resource/Big Bang in slide02: file:///c:/unibo
t/comp6721/Slides/slide02.pdf
permutation: http://dbpedia.org/resource/Permutation in slide02: file:///c:
/unibot/comp6721/Slides/slide02.pdf
infinite loop: http://dbpedia.org/resource/Infinite loop in slide02: file:/
//c:/unibot/comp6721/Slides/slide02.pdf
amnesia: http://dbpedia.org/resource/Amnesia in slide02: file:///c:/unibot/
comp6721/S1ides/s1ide02.pdf
n7: http://dbpedia.org/resource/N postcode area in slide02: file:///c:/unib
ot/comp6721/Slides/slide02.pdf
local minimum: http://dbpedia.org/resource/Maxima and minima in slide02: fi
1e:///c:/unibot/comp6721/Slides/slide02.pdf
exponential space: http://dbpedia.org/resource/EXPSPACE in slide02: file://
/c:/unibot/comp6721/Slides/slide02.pdf
McGraw-Hill: http://dbpedia.org/resource/McGraw-Hill Education in slide02:
file:///c:/unibot/comp6721/Slides/slide02.pdf
Tetris: http://dbpedia.org/resource/Tetris in slide02: file:///c:/unibot/co
mp6721/S1ides/s1ide02.pdf
test function: http://dbpedia.org/resource/Distribution mathematics in slid
```

e02: file:///c:/unibot/comp6721/Slides/slide02.pdf

```
Brute force search: http://dbpedia.org/resource/Brute-force search in slide
02: file:///c:/unibot/comp6721/Slides/slide02.pdf
closed list: http://dbpedia.org/resource/Closed list in slide02: file:///c:
/unibot/comp6721/Slides/slide02.pdf
A* algorithm: http://dbpedia.org/resource/A* search algorithm in slide02: f
ile:///c:/unibot/comp6721/Slides/slide02.pdf
n8: http://dbpedia.org/resource/Rugby union positions in slide02: file:///
c:/unibot/comp6721/S1ides/s1ide02.pdf
evaluation function: http://dbpedia.org/resource/Evaluation_function in sli
de02: file:///c:/unibot/comp6721/Slides/slide02.pdf
plateau: http://dbpedia.org/resource/Plateau in slide02: file:///c:/unibot/
comp6721/Slides/slide02.pdf
Heureka: http://dbpedia.org/resource/Heureka science center in slide02: fil
e:///c:/unibot/comp6721/Slides/slide02.pdf
heuristic function: http://dbpedia.org/resource/Heuristic_computer_science
in slide02: file:///c:/unibot/comp6721/Slides/slide02.pdf
Monotonicity: http://dbpedia.org/resource/Monotonic function in slide02: fi
le:///c:/unibot/comp6721/Slides/slide02.pdf
Algorithm: http://dbpedia.org/resource/Algorithm in lab02: file:///c:/unibo
t/comp6721/Labs/1ab02.pdf
search problem: http://dbpedia.org/resource/Search_algorithm in lab02: fil
e:///c:/unibot/comp6721/Labs/1ab02.pdf
search problem: http://dbpedia.org/resource/Search_problem in lab02: file:/
//c:/unibot/comp6721/Labs/lab02.pdf
Breadth-first search: http://dbpedia.org/resource/Breadth-first search in 1
ab02: file:///c:/unibot/comp6721/Labs/lab02.pdf
Iterative deepening depth-first search: http://dbpedia.org/resource/Iterati
ve_deepening_depth-first_search in lab02: file:///c:/unibot/comp6721/Labs/l
ab02. pdf
```

```
lake: http://dbpedia.org/resource/Lake in lab02: file:///c:/unibot/comp6721
/Labs/lab02.pdf
Depth-first search: http://dbpedia.org/resource/Depth-first search in lab0
2: file:///c:/unibot/comp6721/Labs/lab02.pdf
ice: http://dbpedia.org/resource/Ice in lab02: file:///c:/unibot/comp6721/L
abs/lab02.pdf
fox: http://dbpedia.org/resource/Fox in lab02: file:///c:/unibot/comp6721/L
abs/lab02.pdf
graph: http://dbpedia.org/resource/Graph_database in worksheet07: file:///
c:/unibot/comp6721/Worksheet/worksheet07.pdf
graph: http://dbpedia.org/resource/Graph theory in worksheet07: file:///c:/
unibot/comp6721/Worksheet/worksheet07.pdf
human-readable: http://dbpedia.org/resource/Human-readable medium in worksh
eet07: file:///c:/unibot/comp6721/Worksheet/worksheet07.pdf
URL: http://dbpedia.org/resource/URL in worksheet07: file:///c:/unibot/comp
6721/Worksheet/worksheet07.pdf
URIs: http://dbpedia.org/resource/Uniform Resource Identifier in worksheet0
7: file:///c:/unibot/comp6721/Worksheet/worksheet07.pdf
knowledge graphs: http://dbpedia.org/resource/Ontology_information_science
in lab08: file:///c:/unibot/comp6721/Labs/Lab08.pdf
RDFS: http://dbpedia.org/resource/RDF_Schema in lab08: file:///c:/unibot/co
mp6721/Labs/Lab08. pdf
```

graph: http://dbpedia.org/resource/Graph_database in lab08: file:///c:/unib ot/comp6721/Labs/Lab08.pdf

graph: http://dbpedia.org/resource/Graph_theory in lab08: file:///c:/unibot
/comp6721/Labs/Lab08.pdf

HTML: http://dbpedia.org/resource/HTML in lab08: file:///c:/unibot/comp6721/Labs/Lab08.pdf

knowledge base: http://dbpedia.org/resource/Knowledge_base in lab08: file://c:/unibot/comp6721/Labs/Lab08.pdf

```
human-readable: http://dbpedia.org/resource/Human-readable medium in lab08:
file:///c:/unibot/comp6721/Labs/Lab08.pdf
knowledge graph: http://dbpedia.org/resource/Knowledge Graph in lab08: fil
e:///c:/unibot/comp6721/Labs/Lab08.pdf
Graph: http://dbpedia.org/resource/Graph of a function in lab08: file:///c:
/unibot/comp6721/Labs/Lab08.pdf
function: http://dbpedia.org/resource/Protein in lab08: file:///c:/unibot/c
omp6721/Labs/Lab08. pdf
function: http://dbpedia.org/resource/Stochastic_process in lab08: file:///
c:/unibot/comp6721/Labs/Lab08.pdf
function: http://dbpedia.org/resource/Subroutine in lab08: file:///c:/unibo
t/comp6721/Labs/Lab08.pdf
predicates: http://dbpedia.org/resource/First-order logic in lab08: file://
/c:/unibot/comp6721/Labs/Lab08.pdf
file extension: http://dbpedia.org/resource/Filename extension in lab08: fi
1e:///c:/unibot/comp6721/Labs/Lab08.pdf
intersection: http://dbpedia.org/resource/Intersection in lab08: file:///c:
/unibot/comp6721/Labs/Lab08.pdf
graph operations: http://dbpedia.org/resource/Graph_operations in lab08: fi
le:///c:/unibot/comp6721/Labs/Lab08.pdf
URIs: http://dbpedia.org/resource/Uniform Resource Identifier in lab08: fil
e:///c:/unibot/comp6721/Labs/Lab08.pdf
le titre: http://dbpedia.org/resource/Le_Titre in slide08: file:///c:/unibo
t/comp6721/Slides/slide08.pdf
SPARQL: http://dbpedia.org/resource/SPARQL in slide08: file:///c:/unibot/co
mp6721/S1ides/s1ide08.pdf
suffix: http://dbpedia.org/resource/Suffix in slide08: file:///c:/unibot/co
mp6721/S1ides/s1ide08.pdf
Bottleneck: http://dbpedia.org/resource/Free State Bottleneck in slide08: f
```

ile:///c:/unibot/comp6721/Slides/slide08.pdf

RDFS: http://dbpedia.org/resource/RDF_Schema in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Liyang: http://dbpedia.org/resource/Liyang in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

All: http://dbpedia.org/resource/All_autoroute in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

gene: http://dbpedia.org/resource/Gene in slide08: file:///c:/unibot/comp67
21/Slides/slide08.pdf

programming: http://dbpedia.org/resource/Computer_programming in slide08: f ile:///c:/unibot/comp6721/Slides/slide08.pdf

The Glass Palace: http://dbpedia.org/resource/The_Glass_Palace in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Satori: http://dbpedia.org/resource/Satori in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

schema: http://dbpedia.org/resource/XML_schema in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

schema: http://dbpedia.org/resource/Database_schema in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

MAPK3: http://dbpedia.org/resource/MAPK3 in slide08: file:///c:/unibot/comp 6721/Slides/slide08.pdf

Berlin: http://dbpedia.org/resource/Berlin in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

gefitinib: http://dbpedia.org/resource/Gefitinib in slide08: file:///c:/uni bot/comp6721/Slides/slide08.pdf

Description Logic: http://dbpedia.org/resource/Description_logic in slide0 8: file:///c:/unibot/comp6721/Slides/slide08.pdf

human immunodeficiency virus: http://dbpedia.org/resource/HIV in slide08: f ile:///c:/unibot/comp6721/Slides/slide08.pdf

Google: http://dbpedia.org/resource/Google in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Leonardo: http://dbpedia.org/resource/Leonardo_da_Vinci in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

gp41: http://dbpedia.org/resource/Gp41 in slide08: file:///c:/unibot/comp67
21/Slides/slide08.pdf

protein: http://dbpedia.org/resource/Protein in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Sameer: http://dbpedia.org/resource/Sameer_lyricist in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

A12: http://dbpedia.org/resource/Apple_A12 in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Hanover: http://dbpedia.org/resource/Hanover in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Cyc: http://dbpedia.org/resource/Cyc in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Le Palais: http://dbpedia.org/resource/Le_Palais in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

IBM: http://dbpedia.org/resource/IBM in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

mutation: http://dbpedia.org/resource/Mutation in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Google Assistant: http://dbpedia.org/resource/Google_Assistant in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

JSON-LD: http://dbpedia.org/resource/JSON-LD in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Logic: http://dbpedia.org/resource/Logic in slide08: file:///c:/unibot/comp 6721/Slides/slide08.pdf

ISBN: http://dbpedia.org/resource/International_Standard_Book_Number in sli de08: file:///c:/unibot/comp6721/Slides/slide08.pdf

TED: http://dbpedia.org/resource/TED_conference in slide08: file:///c:/unib ot/comp6721/Slides/slide08.pdf

PHP: http://dbpedia.org/resource/PHP in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

expression: http://dbpedia.org/resource/Gene_expression in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

human-readable: http://dbpedia.org/resource/Human-readable_medium in slide0 8: file:///c:/unibot/comp6721/Slides/slide08.pdf

Lisa: http://dbpedia.org/resource/Lisa_Simpson in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Mona Lisa: http://dbpedia.org/resource/Mona_Lisa in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

point mutation: http://dbpedia.org/resource/Point_mutation in slide08: fil
e:///c:/unibot/comp6721/Slides/slide08.pdf

N3: http://dbpedia.org/resource/Notation3 in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Alice: http://dbpedia.org/resource/Alice_and_Bob in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Scott: http://dbpedia.org/resource/Walter_Scott in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

miroirs: http://dbpedia.org/resource/Miroirs in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

MAPK1: http://dbpedia.org/resource/MAPK1 in slide08: file:///c:/unibot/comp 6721/Slides/slide08.pdf

Heidelberg: http://dbpedia.org/resource/Heidelberg in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

knowledge graph: http://dbpedia.org/resource/Knowledge_Graph in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

N-Triples: http://dbpedia.org/resource/N-Triples in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Resource Description Framework (RDF): http://dbpedia.org/resource/Resource_Description_Framework in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

datatype: http://dbpedia.org/resource/Data_type in slide08: file:///c:/unib ot/comp6721/Slides/slide08.pdf

RDFa: http://dbpedia.org/resource/RDFa in slide08: file:///c:/unibot/comp67 21/Slides/slide08.pdf

ConceptNet: http://dbpedia.org/resource/Open_Mind_Common_Sense in slide08:

file:///c:/unibot/comp6721/Slides/slide08.pdf

auteur: http://dbpedia.org/resource/Auteur in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Semantic Networks: http://dbpedia.org/resource/Semantic_network in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Semantic Web: http://dbpedia.org/resource/Semantic_Web in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

SHRDLU: http://dbpedia.org/resource/SHRDLU in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

RDF/XML: http://dbpedia.org/resource/XML in slide08: file:///c:/unibot/comp 6721/Slides/slide08.pdf

Serialization: http://dbpedia.org/resource/Serialization in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

IL2: http://dbpedia.org/resource/Interleukin_2 in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Harper Collins: http://dbpedia.org/resource/HarperCollins in slide08: file: ///c:/unibot/comp6721/Slides/slide08.pdf

URI: http://dbpedia.org/resource/Uniform_Resource_Identifier in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

KITLG: http://dbpedia.org/resource/Stem_cell_factor in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

Wikidata: http://dbpedia.org/resource/Wikidata in slide08: file:///c:/unibot/comp6721/Slides/slide08.pdf

GRB2: http://dbpedia.org/resource/GRB2 in slide08: file:///c:/unibot/comp67 21/Slides/slide08.pdf

Lennon: http://dbpedia.org/resource/John_Lennon in slide08: file:///c:/unib ot/comp6721/Slides/slide08.pdf

API: http://dbpedia.org/resource/Application_programming_interface in slide 08: file://c:/unibot/comp6721/Slides/slide08.pdf

SPARQL: http://dbpedia.org/resource/SPARQL in lab09: file:///c:/unibot/comp 6721/Labs/Lab09.pdf

subclass: http://dbpedia.org/resource/Ship_class in lab09: file:///c:/unibo
t/comp6721/Labs/Lab09.pdf

email: http://dbpedia.org/resource/Email in lab09: file:///c:/unibot/comp67 21/Labs/Lab09.pdf

rdfs: http://dbpedia.org/resource/RDF_Schema in lab09: file:///c:/unibot/comp6721/Labs/Lab09.pdf

knowledge graph: http://dbpedia.org/resource/Knowledge_Graph in lab09: fil
e:///c:/unibot/comp6721/Labs/Lab09.pdf

brackets: http://dbpedia.org/resource/Bracket in lab09: file:///c:/unibot/comp6721/Labs/Lab09.pdf

URI: http://dbpedia.org/resource/Uniform_Resource_Identifier in lab09: file:///c:/unibot/comp6721/Labs/Lab09.pdf

SELECT: http://dbpedia.org/resource/Select_SQL in worksheet08: file:///c:/unibot/comp6721/Worksheet/worksheet08.pdf

subclass: http://dbpedia.org/resource/Ship_class in worksheet08: file:///c: /unibot/comp6721/Worksheet/worksheet08.pdf

robots!: http://dbpedia.org/resource/Robots! in worksheet08: file:///c:/unibot/comp6721/Worksheet/worksheet08.pdf

URL: http://dbpedia.org/resource/URL in worksheet08: file:///c:/unibot/comp 6721/Worksheet/worksheet08.pdf

```
brevity: http://dbpedia.org/resource/Operation_Brevity in worksheet08: fil e:///c:/unibot/comp6721/Worksheet/worksheet08.pdf
```

pseudocode: http://dbpedia.org/resource/Pseudocode in worksheet08: file:///
c:/unibot/comp6721/Worksheet/worksheet08.pdf

SPARQL: http://dbpedia.org/resource/SPARQL in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Manning Publications: http://dbpedia.org/resource/Manning_Publications in s lide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

RDFS: http://dbpedia.org/resource/RDF_Schema in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Liyang: http://dbpedia.org/resource/Liyang in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

The members: http://dbpedia.org/resource/The_Members in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

The Glass Palace: http://dbpedia.org/resource/The_Glass_Palace in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Berlin: http://dbpedia.org/resource/Berlin in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

KG: http://dbpedia.org/resource/Order_of_the_Garter in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

graph: http://dbpedia.org/resource/Graph_database in slide09: file:///c:/un ibot/comp6721/Slides/slide09.pdf

graph: http://dbpedia.org/resource/Graph_theory in slide09: file:///c:/unib ot/comp6721/Slides/slide09.pdf

entailment: http://dbpedia.org/resource/Logical_consequence in slide09: fil
e:///c:/unibot/comp6721/Slides/slide09.pdf

Google: http://dbpedia.org/resource/Google in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Sameer: http://dbpedia.org/resource/Sameer_lyricist in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

CSV: http://dbpedia.org/resource/Comma-separated_values in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

class(es): http://dbpedia.org/resource/Travel_class in slide09: file:///c:/
unibot/comp6721/Slides/slide09.pdf

Le Palais: http://dbpedia.org/resource/Le_Palais in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

RDF: http://dbpedia.org/resource/Resource_Description_Framework in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

currency: http://dbpedia.org/resource/Currency in slide09: file:///c:/unibo
t/comp6721/Slides/slide09.pdf

human-readable: http://dbpedia.org/resource/Human-readable_medium in slide0 9: file:///c:/unibot/comp6721/Slides/slide09.pdf

Amsterdam: http://dbpedia.org/resource/Amsterdam in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Semantics: http://dbpedia.org/resource/Semantics in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Oscars: http://dbpedia.org/resource/Academy_Awards in slideO9: file:///c:/unibot/comp6721/Slides/slideO9.pdf

vvv: http://dbpedia.org/resource/VVV-Venlo in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Scott: http://dbpedia.org/resource/Walter_Scott in slide09: file:///c:/unib ot/comp6721/Slides/slide09.pdf

miroirs: http://dbpedia.org/resource/Miroirs in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Heidelberg: http://dbpedia.org/resource/Heidelberg in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

knowledge graph: http://dbpedia.org/resource/Knowledge_Graph in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

Nexus: http://dbpedia.org/resource/Google_Nexus in slide09: file:///c:/unibot/comp6721/Slides/slide09.pdf

```
N-Triples: http://dbpedia.org/resource/N-Triples in slide09: file:///c:/uni
bot/comp6721/Slides/slide09.pdf
Gene Ontology: http://dbpedia.org/resource/Gene ontology in slide09: file:/
//c:/unibot/comp6721/Slides/slide09.pdf
Semantic Web: http://dbpedia.org/resource/Semantic Web in slide09: file:///
c:/unibot/comp6721/S1ides/s1ide09.pdf
silo: http://dbpedia.org/resource/Silo in slide09: file:///c:/unibot/comp67
21/Slides/slide09.pdf
David Wood: http://dbpedia.org/resource/Straitjacket_Fits in slide09: file:
///c:/unibot/comp6721/Slides/slide09.pdf
RDF/XML: http://dbpedia.org/resource/XML in slide09: file:///c:/unibot/comp
6721/Slides/slide09.pdf
social network: http://dbpedia.org/resource/Social network in slide09: fil
e:///c:/unibot/comp6721/Slides/slide09.pdf
Ken Jennings: http://dbpedia.org/resource/Ken Jennings in slide01: file:///
c:/unibot/comp6721/S1ides/s1ide01.pdf
Papert: http://dbpedia.org/resource/Seymour_Papert in slide01: file:///c:/u
nibot/comp6721/Slides/slide01.pdf
human intelligence: http://dbpedia.org/resource/Human_intelligence in slide
01: file:///c:/unibot/comp6721/Slides/slide01.pdf
chess: http://dbpedia.org/resource/Chess in slide01: file:///c:/unibot/comp
6721/Slides/slide01.pdf
toy-: http://dbpedia.org/resource/Toy_theater in slide01: file:///c:/unibot
/comp6721/Slides/slide01.pdf
Mitchell Kapor: http://dbpedia.org/resource/Mitch Kapor in slide01: file://
/c:/unibot/comp6721/Slides/slide01.pdf
AlphaGo: http://dbpedia.org/resource/AlphaGo in slideO1: file:///c:/unibot/
comp6721/Slides/slide01.pdf
consciousness: http://dbpedia.org/resource/Consciousness in slide01: file:/
//c:/unibot/comp6721/Slides/slide01.pdf
```

```
ALPAC: http://dbpedia.org/resource/ALPAC in slide01: file:///c:/unibot/comp
6721/Slides/slide01.pdf
Lotus Development: http://dbpedia.org/resource/Lotus Software in slide01: f
ile:///c:/unibot/comp6721/Slides/slide01.pdf
OCR: http://dbpedia.org/resource/Optical character recognition in slide01:
file:///c:/unibot/comp6721/Slides/slide01.pdf
Kramnik: http://dbpedia.org/resource/Vladimir Kramnik in slide01: file:///
c:/unibot/comp6721/S1ides/s1ide01.pdf
Expert Systems: http://dbpedia.org/resource/Expert_system in slide01: file:
///c:/unibot/comp6721/Slides/slide01.pdf
x-ray vision: http://dbpedia.org/resource/X-ray vision in slide01: file:///
c:/unibot/comp6721/Slides/slide01.pdf
dog: http://dbpedia.org/resource/Dog in slide01: file:///c:/unibot/comp6721
/Slides/slide01.pdf
chatbot: http://dbpedia.org/resource/Chatbot in slide01: file:///c:/unibot/
comp6721/Slides/slide01.pdf
CAPTCHA: http://dbpedia.org/resource/CAPTCHA in slide01: file:///c:/unibot/
comp6721/Slides/slide01.pdf
automation: http://dbpedia.org/resource/Automation in slide01: file:///c:/u
nibot/comp6721/Slides/slide01.pdf
IBM: http://dbpedia.org/resource/IBM in slide01: file:///c:/unibot/comp6721
/Slides/slide01.pdf
Weak AI: http://dbpedia.org/resource/Weak_AI in slideO1: file:///c:/unibot/
comp6721/Slides/slide01.pdf
anthropomorphic: http://dbpedia.org/resource/Anthropomorphism in slide01: f
ile:///c:/unibot/comp6721/Slides/slide01.pdf
Jeopardy!: http://dbpedia.org/resource/Jeopardy! in slide01: file:///c:/uni
bot/comp6721/Slides/slide01.pdf
pronoun: http://dbpedia.org/resource/Pronoun in slide01: file:///c:/unibot/
```

comp6721/S1ides/s1ide01.pdf

```
robot: http://dbpedia.org/resource/Robot in slide01: file:///c:/unibot/comp
6721/Slides/slide01.pdf
Joseph Weizenbaum: http://dbpedia.org/resource/Joseph Weizenbaum in slide0
1: file:///c:/unibot/comp6721/Slides/slide01.pdf
computer science: http://dbpedia.org/resource/Computer science in slide01:
file:///c:/unibot/comp6721/Slides/slide01.pdf
Intel Core 2 Duo: http://dbpedia.org/resource/Intel Core in slide01: file:/
//c:/unibot/comp6721/Slides/slide01.pdf
SHRDLU: http://dbpedia.org/resource/SHRDLU in slide01: file:///c:/unibot/co
mp6721/Slides/slide01.pdf
GOFAI: http://dbpedia.org/resource/Symbolic artificial intelligence in slid
e01: file:///c:/unibot/comp6721/Slides/slide01.pdf
massively parallel: http://dbpedia.org/resource/Massively parallel in slide
01: file:///c:/unibot/comp6721/Slides/slide01.pdf
Kasparov: http://dbpedia.org/resource/Garry_Kasparov in slide01: file:///c:
/unibot/comp6721/Slides/slide01.pdf
psychologist: http://dbpedia.org/resource/Psychologist in slide01: file:///
c:/unibot/comp6721/Slides/slide01.pdf
reasoned action: http://dbpedia.org/resource/Theory_of_reasoned_action in s
lideO1: file:///c:/unibot/comp6721/Slides/slideO1.pdf
algorithm: http://dbpedia.org/resource/Algorithm in lab01: file:///c:/unibo
t/comp6721/Labs/1ab01.pdf
AI: http://dbpedia.org/resource/Artificial_intelligence in lab01: file:///
c:/unibot/comp6721/Labs/lab01.pdf
Google: http://dbpedia.org/resource/Google in lab01: file:///c:/unibot/comp
6721/Labs/1ab01. pdf
symbolic computation: http://dbpedia.org/resource/Computer algebra in lab0
1: file:///c:/unibot/comp6721/Labs/lab01.pdf
Machine Translation: http://dbpedia.org/resource/Machine translation in lab
01: file:///c:/unibot/comp6721/Labs/lab01.pdf
```

```
knowledge base: http://dbpedia.org/resource/Knowledge base in lab01: file:/
//c:/unibot/comp6721/Labs/lab01.pdf
robot: http://dbpedia.org/resource/Robot in lab01: file:///c:/unibot/comp67
21/Labs/1ab01. pdf
antibiotics: http://dbpedia.org/resource/Antibiotic in lab01: file:///c:/un
ibot/comp6721/Labs/lab01.pdf
Netflix: http://dbpedia.org/resource/Netflix in lab01: file:///c:/unibot/co
mp6721/Labs/1ab01. pdf
GOFAI: http://dbpedia.org/resource/Symbolic_artificial_intelligence in lab0
1: file:///c:/unibot/comp6721/Labs/lab01.pdf
rule-based machine translation: http://dbpedia.org/resource/Rule-based mach
ine_translation in lab01: file:///c:/unibot/comp6721/Labs/lab01.pdf
benchmark: http://dbpedia.org/resource/Benchmarking in lab01: file:///c:/un
ibot/comp6721/Labs/lab01.pdf
Lisp: http://dbpedia.org/resource/Common Lisp in lab01: file:///c:/unibot/c
omp6721/Labs/1ab01.pdf
bigram: http://dbpedia.org/resource/Bigram in worksheet09: file:///c:/unibo
t/comp6721/Worksheet/worksheet09.pdf
POS: http://dbpedia.org/resource/Point_of_sale in worksheet09: file:///c:/u
nibot/comp6721/Worksheet/worksheet09.pdf
POS: http://dbpedia.org/resource/Part_of_speech in worksheet09: file:///c:/
unibot/comp6721/Worksheet/worksheet09.pdf
context-free grammar: http://dbpedia.org/resource/Context-free_grammar in w
orksheet09: file:///c:/unibot/comp6721/Worksheet/worksheet09.pdf
probability: http://dbpedia.org/resource/Conditional probability in workshe
et09: file:///c:/unibot/comp6721/Worksheet/worksheet09.pdf
probability: http://dbpedia.org/resource/Probability in worksheet09: file:/
//c:/unibot/comp6721/Worksheet/worksheet09.pdf
Probability: http://dbpedia.org/resource/Probability in worksheet09: file:/
//c:/unibot/comp6721/Worksheet/worksheet09.pdf
```

```
Word Sense Disambiguation: http://dbpedia.org/resource/Word-sense_disambigu ation in worksheet09: file://c:/unibot/comp6721/Worksheet/worksheet09.pdf lexicon: http://dbpedia.org/resource/Lexicon in worksheet09: file:///c:/unibot/comp6721/Worksheet/worksheet09.pdf training corpus: http://dbpedia.org/resource/Training, validation, and test
```

training corpus: http://dbpedia.org/resource/Training,_validation,_and_test _sets in worksheet09: file:///c:/unibot/comp6721/Worksheet/worksheet09.pdf bigram: http://dbpedia.org/resource/Bigram in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

language model: http://dbpedia.org/resource/Language_model in lab10: file:/
//c:/unibot/comp6721/Labs/Lab10.pdf

privacy: http://dbpedia.org/resource/Privacy in lab10: file:///c:/unibot/co
mp6721/Labs/Lab10.pdf

tokenization: http://dbpedia.org/resource/Lexical_analysis in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

context-free grammar: http://dbpedia.org/resource/Context-free_grammar in 1
ab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

wheel: http://dbpedia.org/resource/Wheel in lab10: file:///c:/unibot/comp67 21/Labs/Lab10.pdf

library: http://dbpedia.org/resource/Library in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

PP: http://dbpedia.org/resource/People's_Party_Spain in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

skin: http://dbpedia.org/resource/Skin in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

pipelines: http://dbpedia.org/resource/Pipeline_transport in lab10: file://
/c:/unibot/comp6721/Labs/Lab10.pdf

laptop: http://dbpedia.org/resource/Laptop in lab10: file:///c:/unibot/comp 6721/Labs/Lab10.pdf

crime: http://dbpedia.org/resource/Crime in lab10: file:///c:/unibot/comp67
21/Labs/Lab10.pdf

```
knife: http://dbpedia.org/resource/Knife in lab10: file:///c:/unibot/comp67
21/Labs/Lab10.pdf
```

python: http://dbpedia.org/resource/Pythonidae in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

overcoat: http://dbpedia.org/resource/Overcoat in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

candle: http://dbpedia.org/resource/Candle in lab10: file:///c:/unibot/comp
6721/Labs/Lab10.pdf

training corpus: http://dbpedia.org/resource/Training,_validation,_and_test sets in lab10: file:///c:/unibot/comp6721/Labs/Lab10.pdf

Princeton: http://dbpedia.org/resource/Princeton_University in slide10: fil e:///c:/unibot/comp6721/Slides/slide10.pdf

Named entity recognition: http://dbpedia.org/resource/Named-entity_recognit ion in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

fish: http://dbpedia.org/resource/Fish in slide10: file:///c:/unibot/comp67 21/Slides/slide10.pdf

n-gram: http://dbpedia.org/resource/N-gram in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

semantic roles: http://dbpedia.org/resource/Thematic_relation in slide10: f ile:///c:/unibot/comp6721/Slides/slide10.pdf

bigram: http://dbpedia.org/resource/Bigram in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Paris: http://dbpedia.org/resource/Paris in slide10: file:///c:/unibot/comp 6721/Slides/slide10.pdf

Paraphrase: http://dbpedia.org/resource/Paraphrase in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

soup: http://dbpedia.org/resource/Soup in slide10: file:///c:/unibot/comp67
21/Slides/slide10.pdf

search problem: http://dbpedia.org/resource/Search_algorithm in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

search problem: http://dbpedia.org/resource/Search_problem in slide10: fil e:///c:/unibot/comp6721/Slides/slide10.pdf

butter: http://dbpedia.org/resource/Butter in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

apple: http://dbpedia.org/resource/Apple in slide10: file:///c:/unibot/comp 6721/Slides/slide10.pdf

shoe: http://dbpedia.org/resource/Shoe in slide10: file:///c:/unibot/comp67 21/Slides/slide10.pdf

Optical character recognition: http://dbpedia.org/resource/Optical_character_recognition in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf perfume: http://dbpedia.org/resource/Perfume in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Ontario: http://dbpedia.org/resource/Ontario in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

NP: http://dbpedia.org/resource/Noun_phrase in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

POS: http://dbpedia.org/resource/Point_of_sale in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

POS: http://dbpedia.org/resource/Part_of_speech in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

sleep: http://dbpedia.org/resource/Sleep in slide10: file:///c:/unibot/comp 6721/Slides/slide10.pdf

NER: http://dbpedia.org/resource/Nucleotide_excision_repair in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

UN: http://dbpedia.org/resource/United_Nations in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Google: http://dbpedia.org/resource/Google in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Castro Theatre: http://dbpedia.org/resource/Castro_Theatre in slide10: fil e:///c:/unibot/comp6721/Slides/slide10.pdf

```
telescope: http://dbpedia.org/resource/Telescope in slide10: file:///c:/uni
bot/comp6721/Slides/slide10.pdf
metal: http://dbpedia.org/resource/Heavy metal music in slide10: file:///c:
/unibot/comp6721/Slides/slide10.pdf
musical instrument: http://dbpedia.org/resource/Musical instrument in slide
10: file:///c:/unibot/comp6721/Slides/slide10.pdf
LOC: http://dbpedia.org/resource/Library of Congress in slide10: file:///c:
/unibot/comp6721/Slides/slide10.pdf
zoophyte: http://dbpedia.org/resource/Zoophyte in slide10: file:///c:/unibo
```

t/comp6721/S1ides/s1ide10.pdf

matrix: http://dbpedia.org/resource/Definiteness of a matrix in slide10: fi le:///c:/unibot/comp6721/Slides/slide10.pdf

case sensitivity: http://dbpedia.org/resource/Case sensitivity in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Falkland Islands: http://dbpedia.org/resource/Falkland Islands in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Potomac: http://dbpedia.org/resource/Potomac River in slide10: file:///c:/u nibot/comp6721/Slides/slide10.pdf

elephant: http://dbpedia.org/resource/Elephant in slide10: file:///c:/unibo t/comp6721/Slides/slide10.pdf

dog: http://dbpedia.org/resource/Dog in slide10: file:///c:/unibot/comp6721 /Slides/slide10.pdf

Montreal: http://dbpedia.org/resource/Montreal in slide10: file:///c:/unibo t/comp6721/Slides/slide10.pdf

bi-: http://dbpedia.org/resource/Glossary of leaf morphology in slide10: fi le:///c:/unibot/comp6721/Slides/slide10.pdf

General Motors: http://dbpedia.org/resource/General Motors in slide10: fil e:///c:/unibot/comp6721/Slides/slide10.pdf

probability distribution: http://dbpedia.org/resource/Probability distribut ion in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

```
Jurafsky: http://dbpedia.org/resource/Daniel Jurafsky in slide10: file:///
c:/unibot/comp6721/Slides/slide10.pdf
classifier: http://dbpedia.org/resource/Statistical classification in slide
10: file:///c:/unibot/comp6721/Slides/slide10.pdf
IBM: http://dbpedia.org/resource/IBM in slide10: file:///c:/unibot/comp6721
/Slides/slide10.pdf
verb: http://dbpedia.org/resource/Verb in slide10: file:///c:/unibot/comp67
21/Slides/slide10.pdf
Probability: http://dbpedia.org/resource/Probability in slide10: file:///c:
/unibot/comp6721/Slides/slide10.pdf
Machine Translation: http://dbpedia.org/resource/Machine translation in sli
de10: file:///c:/unibot/comp6721/Slides/slide10.pdf
gram: http://dbpedia.org/resource/Gram in slide10: file:///c:/unibot/comp67
21/Slides/slide10.pdf
ML: http://dbpedia.org/resource/Machine learning in slide10: file:///c:/uni
bot/comp6721/Slides/slide10.pdf
ABC: http://dbpedia.org/resource/American Broadcasting Company in slide10:
file:///c:/unibot/comp6721/Slides/slide10.pdf
Citizen Kane: http://dbpedia.org/resource/Citizen_Kane in slide10: file:///
c:/unibot/comp6721/S1ides/s1ide10.pdf
spam filter: http://dbpedia.org/resource/Email filtering in slide10: file:/
//c:/unibot/comp6721/S1ides/s1ide10.pdf
California: http://dbpedia.org/resource/California in slide10: file:///c:/u
nibot/comp6721/Slides/slide10.pdf
prob: http://dbpedia.org/resource/ProB in slide10: file:///c:/unibot/comp67
21/Slides/slide10.pdf
Sentiment Analysis: http://dbpedia.org/resource/Sentiment analysis in slide
10: file:///c:/unibot/comp6721/Slides/slide10.pdf
```

Silence: http://dbpedia.org/resource/Silence in slide10: file:///c:/unibot/

comp6721/S1ides/s1ide10.pdf

```
computer: http://dbpedia.org/resource/Computer in slide10: file:///c:/unibo
t/comp6721/Slides/slide10.pdf
gay: http://dbpedia.org/resource/Gay in slide10: file:///c:/unibot/comp6721
/Slides/slide10.pdf
European Central Bank: http://dbpedia.org/resource/European Central Bank in
slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf
coffee: http://dbpedia.org/resource/Coffee in slide10: file:///c:/unibot/co
mp6721/S1ides/s1ide10.pdf
Word sense disambiguation: http://dbpedia.org/resource/Word-sense_disambigu
ation in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf
expression: http://dbpedia.org/resource/Gene expression in slide10: file://
/c:/unibot/comp6721/Slides/slide10.pdf
conceptual graph: http://dbpedia.org/resource/Conceptual graph in slide10:
file:///c:/unibot/comp6721/Slides/slide10.pdf
milk: http://dbpedia.org/resource/Milk in slide10: file:///c:/unibot/comp67
21/Slides/slide10.pdf
syntactic ambiguity: http://dbpedia.org/resource/Syntactic ambiguity in sli
de10: file:///c:/unibot/comp6721/Slides/slide10.pdf
fever: http://dbpedia.org/resource/Fever in slide10: file:///c:/unibot/comp
6721/Slides/slide10.pdf
ADV: http://dbpedia.org/resource/A.D._Vision in slide10: file:///c:/unibot/
comp6721/S1ides/s1ide10.pdf
conditional probabilities: http://dbpedia.org/resource/Conditional_probabil
ity in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf
```

Information Extraction: http://dbpedia.org/resource/Information_extraction in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Marx: http://dbpedia.org/resource/Karl_Marx in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Bush: http://dbpedia.org/resource/George_W._Bush in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

syntactic constituents: http://dbpedia.org/resource/Constituent_linguistics

in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

helicopter: http://dbpedia.org/resource/Helicopter in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

bird: http://dbpedia.org/resource/Bird in slide10: file:///c:/unibot/comp67 21/Slides/slide10.pdf

broccoli: http://dbpedia.org/resource/Broccoli in slide10: file:///c:/unibo
t/comp6721/Slides/slide10.pdf

Semantics: http://dbpedia.org/resource/Semantics in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Agra: http://dbpedia.org/resource/Agra in slide10: file:///c:/unibot/comp67 21/Slides/slide10.pdf

zucchini: http://dbpedia.org/resource/Zucchini in slide10: file:///c:/unibo
t/comp6721/Slides/slide10.pdf

Frankfurt: http://dbpedia.org/resource/Frankfurt in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Bill Gates: http://dbpedia.org/resource/Bill_Gates in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Conjunctions: http://dbpedia.org/resource/Conjunctions in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

magic: http://dbpedia.org/resource/Magic_in_fiction in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Dracula: http://dbpedia.org/resource/Dracula in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

violin: http://dbpedia.org/resource/Violin in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

kj: http://dbpedia.org/resource/Joule in slide10: file:///c:/unibot/comp672
1/Slides/slide10.pdf

Pragmatics: http://dbpedia.org/resource/Pragmatics in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

bass: http://dbpedia.org/resource/Bass_guitar in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

toffee: http://dbpedia.org/resource/Toffee in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Mubarak: http://dbpedia.org/resource/Hosni_Mubarak in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Walmart: http://dbpedia.org/resource/Walmart in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Einstein: http://dbpedia.org/resource/Albert_Einstein in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

gringo: http://dbpedia.org/resource/Gringo in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Quantifier: http://dbpedia.org/resource/Quantifier_logic in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

base pair: http://dbpedia.org/resource/Base_pair in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Alcatraz: http://dbpedia.org/resource/Alcatraz_Island in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

GOFAI: http://dbpedia.org/resource/Symbolic_artificial_intelligence in slid e10: file:///c:/unibot/comp6721/Slides/slide10.pdf

K-means clustering: http://dbpedia.org/resource/K-means_clustering in slide 10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Michael Jackson: http://dbpedia.org/resource/Michael_Jackson in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

comma: http://dbpedia.org/resource/Comma in slide10: file:///c:/unibot/comp
6721/Slides/slide10.pdf

mouse: http://dbpedia.org/resource/Mouse in slide10: file:///c:/unibot/comp 6721/Slides/slide10.pdf

mouse: http://dbpedia.org/resource/Computer_mouse in slide10: file:///c:/un ibot/comp6721/Slides/slide10.pdf

```
San Francisco: http://dbpedia.org/resource/San_Francisco in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf
```

Schütze: http://dbpedia.org/resource/Schütze in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Dow Jones: http://dbpedia.org/resource/Dow_Jones_Industrial_Average in slid e10: file:///c:/unibot/comp6721/Slides/slide10.pdf

grammar: http://dbpedia.org/resource/Grammar in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

grammar: http://dbpedia.org/resource/Formal_grammar in slide10: file:///c:/
unibot/comp6721/Slides/slide10.pdf

WALLACHIA: http://dbpedia.org/resource/Wallachia in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

silk: http://dbpedia.org/resource/Silk in slide10: file:///c:/unibot/comp67
21/Slides/slide10.pdf

Stanford: http://dbpedia.org/resource/Stanford_University in slide10: file: ///c:/unibot/comp6721/Slides/slide10.pdf

salmon: http://dbpedia.org/resource/Salmon in slide10: file:///c:/unibot/co
mp6721/Slides/slide10.pdf

SF: http://dbpedia.org/resource/Science_fiction in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

ibuprofen: http://dbpedia.org/resource/Ibuprofen in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

Kane: http://dbpedia.org/resource/Dany_Kane in slide10: file:///c:/unibot/c
omp6721/Slides/slide10.pdf

training corpus: http://dbpedia.org/resource/Training,_validation,_and_test _sets in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

RHS: http://dbpedia.org/resource/Royal_Horticultural_Society in slide10: file:///c:/unibot/comp6721/Slides/slide10.pdf

iterator: http://dbpedia.org/resource/Iterator in lab07: file:///c:/unibot/ comp6721/Labs/Lab07.pdf

```
activation function: http://dbpedia.org/resource/Activation function in lab
07: file:///c:/unibot/comp6721/Labs/Lab07.pdf
multi-layer perceptron: http://dbpedia.org/resource/Multilayer perceptron i
n lab07: file:///c:/unibot/comp6721/Labs/Lab07.pdf
back-propagation: http://dbpedia.org/resource/Backpropagation in lab07: fil
e:///c:/unibot/comp6721/Labs/Lab07.pdf
truck: http://dbpedia.org/resource/Truck in lab07: file:///c:/unibot/comp67
21/Labs/Lab07. pdf
dog: http://dbpedia.org/resource/Dog in lab07: file:///c:/unibot/comp6721/L
abs/Lab07. pdf
library: http://dbpedia.org/resource/Library in lab07: file:///c:/unibot/co
mp6721/Labs/Lab07. pdf
tensor: http://dbpedia.org/resource/Tensor in lab07: file:///c:/unibot/comp
6721/Labs/Lab07. pdf
DEVICE: http://dbpedia.org/resource/CONFIG.SYS in lab07: file:///c:/unibot/
comp6721/Labs/Lab07. pdf
ReLU: http://dbpedia.org/resource/Rectifier neural networks in lab07: file:
///c:/unibot/comp6721/Labs/Lab07.pdf
image classification: http://dbpedia.org/resource/Computer_vision in lab07:
file:///c:/unibot/comp6721/Labs/Lab07.pdf
horse: http://dbpedia.org/resource/Horse in lab07: file:///c:/unibot/comp67
21/Labs/Lab07. pdf
convolutional neural network: http://dbpedia.org/resource/Convolutional_neu
ral_network in lab07: file:///c:/unibot/comp6721/Labs/Lab07.pdf
cross-validation: http://dbpedia.org/resource/Cross-validation statistics i
n lab07: file:///c:/unibot/comp6721/Labs/Lab07.pdf
bird: http://dbpedia.org/resource/Bird in lab07: file:///c:/unibot/comp6721
/Labs/Lab07. pdf
```

dimension: http://dbpedia.org/resource/Dimension in lab07: file:///c:/unibo

t/comp6721/Labs/Lab07.pdf

```
convolution: http://dbpedia.org/resource/Convolution in lab07: file:///c:/u
nibot/comp6721/Labs/Lab07.pdf
function: http://dbpedia.org/resource/Protein in lab07: file:///c:/unibot/c
omp6721/Labs/Lab07.pdf
function: http://dbpedia.org/resource/Stochastic process in lab07: file:///
c:/unibot/comp6721/Labs/Lab07.pdf
function: http://dbpedia.org/resource/Subroutine in lab07: file:///c:/unibo
t/comp6721/Labs/Lab07.pdf
frog: http://dbpedia.org/resource/Frog in lab07: file:///c:/unibot/comp6721
/Labs/Lab07. pdf
hyper-parameter: http://dbpedia.org/resource/Hyperparameter in lab07: file:
///c:/unibot/comp6721/Labs/Lab07.pdf
fully connected network: http://dbpedia.org/resource/Network topology in la
b07: file:///c:/unibot/comp6721/Labs/Lab07.pdf
deer: http://dbpedia.org/resource/Deer in lab07: file:///c:/unibot/comp6721
/Labs/Lab07. pdf
td: http://dbpedia.org/resource/Territorial Decoration in lab07: file:///c:
/unibot/comp6721/Labs/Lab07.pdf
activation function: http://dbpedia.org/resource/Activation_function in wor
ksheet06: file:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
filter: http://dbpedia.org/resource/Filtration in worksheet06: file:///c:/u
nibot/comp6721/Worksheet/worksheet06.pdf
neural networks: http://dbpedia.org/resource/Neural_network in worksheet06:
file:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
Autoencoder: http://dbpedia.org/resource/Autoencoder in worksheet06: file:/
//c:/unibot/comp6721/Worksheet/worksheet06.pdf
vector: http://dbpedia.org/resource/Euclidean vector in worksheet06: file:/
//c:/unibot/comp6721/Worksheet/worksheet06.pdf
vector: http://dbpedia.org/resource/Vector_space in worksheet06: file:///c:
```

/unibot/comp6721/Worksheet/worksheet06.pdf

```
hyperparameters: http://dbpedia.org/resource/Hyperparameter in worksheet06:
file:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
neurons: http://dbpedia.org/resource/Neuron in worksheet06: file:///c:/unib
ot/comp6721/Worksheet/worksheet06.pdf
neurons: http://dbpedia.org/resource/Artificial neuron in worksheet06: fil
e:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
neurons: http://dbpedia.org/resource/Artificial neural network in worksheet
06: file:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
pooling layer: http://dbpedia.org/resource/Convolutional_neural_network in
worksheet06: file:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
sigmoid: http://dbpedia.org/resource/Sigmoid function in worksheet06: file:
///c:/unibot/comp6721/Worksheet/worksheet06.pdf
hT: http://dbpedia.org/resource/Tesla unit in worksheet06: file:///c:/unibo
t/comp6721/Worksheet/worksheet06.pdf
bih: http://dbpedia.org/resource/Bosnia_and_Herzegovina in worksheet06: fil
e:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
convolution: http://dbpedia.org/resource/Convolution in worksheet06: file:/
//c:/unibot/comp6721/Worksheet/worksheet06.pdf
function: http://dbpedia.org/resource/Protein in worksheet06: file:///c:/un
ibot/comp6721/Worksheet/worksheet06.pdf
function: http://dbpedia.org/resource/Stochastic_process in worksheet06: fi
le:///c:/unibot/comp6721/Worksheet/worksheet06.pdf
function: http://dbpedia.org/resource/Subroutine in worksheet06: file:///c:
/unibot/comp6721/Worksheet/worksheet06.pdf
ImageNet: http://dbpedia.org/resource/ImageNet in slide07: file:///c:/unibo
t/comp6721/Slides/slide07.pdf
algorithm: http://dbpedia.org/resource/Algorithm in slide07: file:///c:/uni
bot/comp6721/Slides/slide07.pdf
Regularization: http://dbpedia.org/resource/Regularization mathematics in s
```

lide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

backpropagation: http://dbpedia.org/resource/Backpropagation in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

NaN: http://dbpedia.org/resource/NaN in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

activation function: http://dbpedia.org/resource/Activation_function in sli de07: file:///c:/unibot/comp6721/Slides/slide07.pdf

neuron: http://dbpedia.org/resource/Neuron in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

neuron: http://dbpedia.org/resource/Artificial_neuron in slide07: file:///
c:/unibot/comp6721/Slides/slide07.pdf

Bengio: http://dbpedia.org/resource/Yoshua_Bengio in slide07: file:///c:/un ibot/comp6721/Slides/slide07.pdf

SVM: http://dbpedia.org/resource/Support-vector_machine in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

clause: http://dbpedia.org/resource/Clause in slide07: file:///c:/unibot/co
mp6721/Slides/slide07.pdf

Google: http://dbpedia.org/resource/Google in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Sutton: http://dbpedia.org/resource/London_Borough_of_Sutton in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Hinton: http://dbpedia.org/resource/Geoffrey_Hinton in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

layer 3: http://dbpedia.org/resource/Network_layer in slide07: file:///c:/u nibot/comp6721/Slides/slide07.pdf

The weight: http://dbpedia.org/resource/The_Weight in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Toronto: http://dbpedia.org/resource/Toronto in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Montreal: http://dbpedia.org/resource/Montreal in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

```
human brain: http://dbpedia.org/resource/Human brain in slide07: file:///c:
/unibot/comp6721/Slides/slide07.pdf
classifier: http://dbpedia.org/resource/Statistical classification in slide
07: file:///c:/unibot/comp6721/Slides/slide07.pdf
Machine Translation: http://dbpedia.org/resource/Machine translation in sli
de07: file:///c:/unibot/comp6721/Slides/slide07.pdf
Academic Press: http://dbpedia.org/resource/Academic Press in slide07: fil
e:///c:/unibot/comp6721/Slides/slide07.pdf
labeled data: http://dbpedia.org/resource/Labeled_data in slide07: file:///
c:/unibot/comp6721/Slides/slide07.pdf
GPU: http://dbpedia.org/resource/Graphics processing unit in slide07: file:
///c:/unibot/comp6721/Slides/slide07.pdf
Convolutional Neural Networks: http://dbpedia.org/resource/Convolutional ne
ural network in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf
circle: http://dbpedia.org/resource/Circle in slide07: file:///c:/unibot/co
mp6721/S1ides/s1ide07.pdf
neurons: http://dbpedia.org/resource/Neuron in slide07: file:///c:/unibot/c
omp6721/Slides/slide07.pdf
neurons: http://dbpedia.org/resource/Artificial_neuron in slide07: file:///
c:/unibot/comp6721/S1ides/s1ide07.pdf
neurons: http://dbpedia.org/resource/Artificial neural network in slide07:
file:///c:/unibot/comp6721/Slides/slide07.pdf
convolves: http://dbpedia.org/resource/Convolution in slide07: file:///c:/u
nibot/comp6721/Slides/slide07.pdf
Geoffrey: http://dbpedia.org/resource/Geoffrey of Monmouth in slide07: fil
e:///c:/unibot/comp6721/Slides/slide07.pdf
sigmoid: http://dbpedia.org/resource/Sigmoid function in slide07: file:///
c:/unibot/comp6721/S1ides/s1ide07.pdf
Yann LeCun: http://dbpedia.org/resource/Yann LeCun in slide07: file:///c:/u
nibot/comp6721/S1ides/s1ide07.pdf
```

NN: http://dbpedia.org/resource/Normalnull in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

feature detectors: http://dbpedia.org/resource/Feature_detection_computer_v ision in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Computer Vision: http://dbpedia.org/resource/Computer_vision in slide07: fi le:///c:/unibot/comp6721/Slides/slide07.pdf

Ng: http://dbpedia.org/resource/Andrew_Ng in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

phoneme: http://dbpedia.org/resource/Phoneme in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Open Access: http://dbpedia.org/resource/Open_access in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Max: http://dbpedia.org/resource/Comet_Man in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

Max: http://dbpedia.org/resource/Max_Branning in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

The features: http://dbpedia.org/resource/The_Features in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

CNN: http://dbpedia.org/resource/CNN in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

RGB: http://dbpedia.org/resource/RGB_color_model in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

pixel: http://dbpedia.org/resource/Pixel in slide07: file:///c:/unibot/comp 6721/Slides/slide07.pdf

Canada: http://dbpedia.org/resource/Canada in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

linguistics: http://dbpedia.org/resource/Linguistics in slide07: file:///c:/unibot/comp6721/Slides/slide07.pdf

speech recognition: http://dbpedia.org/resource/Speech_recognition in slide 07: file:///c:/unibot/comp6721/Slides/slide07.pdf

```
Day6: http://dbpedia.org/resource/Day6 in slide04: file:///c:/unibot/comp67
21/Slides/slide04.pdf
ambulance: http://dbpedia.org/resource/Ambulance in slide04: file:///c:/uni
bot/comp6721/Slides/slide04.pdf
pruning: http://dbpedia.org/resource/Pruning in slide04: file:///c:/unibot/
comp6721/S1ides/s1ide04.pdf
pasta: http://dbpedia.org/resource/Pasta in slide04: file:///c:/unibot/comp
6721/Slides/slide04.pdf
algorithm: http://dbpedia.org/resource/Algorithm in slide04: file:///c:/uni
bot/comp6721/Slides/slide04.pdf
grayscale: http://dbpedia.org/resource/Grayscale in slide04: file:///c:/uni
bot/comp6721/Slides/slide04.pdf
Bayes' theorem: http://dbpedia.org/resource/Bayes' theorem in slide04: fil
e:///c:/unibot/comp6721/Slides/slide04.pdf
E3: http://dbpedia.org/resource/Electronic Entertainment Expo in slide04: f
ile:///c:/unibot/comp6721/Slides/slide04.pdf
referee: http://dbpedia.org/resource/Referee in slide04: file:///c:/unibot/
comp6721/Slides/slide04.pdf
X6: http://dbpedia.org/resource/BMW X6 in slide04: file:///c:/unibot/comp67
21/Slides/slide04.pdf
spam filters: http://dbpedia.org/resource/Email filtering in slide04: file:
///c:/unibot/comp6721/S1ides/s1ide04.pdf
dumbo: http://dbpedia.org/resource/Dumbo in slide04: file:///c:/unibot/comp
6721/Slides/slide04.pdf
conditionally independent: http://dbpedia.org/resource/Conditional independ
ence in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf
meds": http://dbpedia.org/resource/Hospital in slide04: file:///c:/unibot/c
omp6721/Slides/slide04.pdf
N sets: http://dbpedia.org/resource/VicRail N type carriage in slide04: fil
```

e:///c:/unibot/comp6721/Slides/slide04.pdf

```
prior probabilities: http://dbpedia.org/resource/Prior_probability in slide
04: file:///c:/unibot/comp6721/Slides/slide04.pdf
```

Montreal: http://dbpedia.org/resource/Montreal in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

classifier: http://dbpedia.org/resource/Statistical_classification in slide 04: file:///c:/unibot/comp6721/Slides/slide04.pdf

Probability: http://dbpedia.org/resource/Probability in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

vector: http://dbpedia.org/resource/Euclidean_vector in slide04: file:///c: /unibot/comp6721/Slides/slide04.pdf

vector: http://dbpedia.org/resource/Vector_space in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

Conditional Probability: http://dbpedia.org/resource/Conditional_probability in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

Bayes Classifier: http://dbpedia.org/resource/Bayes_classifier in slide04:

file:///c:/unibot/comp6721/Slides/slide04.pdf

ham: http://dbpedia.org/resource/Ham in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

trail: http://dbpedia.org/resource/Trail in slide04: file:///c:/unibot/comp 6721/Slides/slide04.pdf

computer program: http://dbpedia.org/resource/Computer_program in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

X4: http://dbpedia.org/resource/CXCR4 in slide04: file:///c:/unibot/comp672 1/Slides/slide04.pdf

coin: http://dbpedia.org/resource/Coin in slide04: file:///c:/unibot/comp67
21/Slides/slide04.pdf

bird: http://dbpedia.org/resource/Bird in slide04: file:///c:/unibot/comp67 21/Slides/slide04.pdf

KNN: http://dbpedia.org/resource/K-nearest_neighbors_algorithm in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

```
dice: http://dbpedia.org/resource/Dice in slide04: file:///c:/unibot/comp67
21/Slides/slide04.pdf
```

quintillion: http://dbpedia.org/resource/Names_of_large_numbers in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

meningitis: http://dbpedia.org/resource/Meningitis in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

Arthur: http://dbpedia.org/resource/King_Arthur in slide04: file:///c:/unib ot/comp6721/Slides/slide04.pdf

Hum: http://dbpedia.org/resource/Hum_TV in slide04: file:///c:/unibot/comp6
721/Slides/slide04.pdf

measles: http://dbpedia.org/resource/Measles in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

data analytics: http://dbpedia.org/resource/Analytics in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

Toothache: http://dbpedia.org/resource/Toothache in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

viagra: http://dbpedia.org/resource/Sildenafil in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

inference: http://dbpedia.org/resource/Inference in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

Joint probability distribution: http://dbpedia.org/resource/Joint_probability_distribution in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf
The evidence: http://dbpedia.org/resource/The_Evidence_TV_series in slide0

pixel: http://dbpedia.org/resource/Pixel in slide04: file:///c:/unibot/comp

4: file:///c:/unibot/comp6721/Slides/slide04.pdf

6721/Slides/slide04.pdf

Outlook: http://dbpedia.org/resource/Microsoft_Outlook in slide04: file:///c:/unibot/comp6721/Slides/slide04.pdf

koko: http://dbpedia.org/resource/Koko_the_Clown in lab04: file:///c:/unibot/comp6721/Labs/lab04.pdf

```
algorithm: http://dbpedia.org/resource/Algorithm in lab04: file:///c:/unibo
t/comp6721/Labs/lab04.pdf
kotuku: http://dbpedia.org/resource/Great egret in lab04: file:///c:/unibot
/comp6721/Labs/lab04.pdf
probability: http://dbpedia.org/resource/Conditional probability in lab04:
file:///c:/unibot/comp6721/Labs/lab04.pdf
probability: http://dbpedia.org/resource/Probability in lab04: file:///c:/u
nibot/comp6721/Labs/1ab04.pdf
training data: http://dbpedia.org/resource/Training,_validation,_and_test_s
ets in lab04: file:///c:/unibot/comp6721/Labs/lab04.pdf
feature vector: http://dbpedia.org/resource/Feature machine learning in lab
04: file:///c:/unibot/comp6721/Labs/lab04.pdf
prior probabilities: http://dbpedia.org/resource/Prior probability in lab0
4: file:///c:/unibot/comp6721/Labs/1ab04.pdf
classifier: http://dbpedia.org/resource/Statistical classification in lab0
4: file:///c:/unibot/comp6721/Labs/lab04.pdf
HAM: http://dbpedia.org/resource/Amateur radio in lab04: file:///c:/unibot/
comp6721/Labs/1ab04.pdf
email: http://dbpedia.org/resource/Email in lab04: file:///c:/unibot/comp67
21/Labs/1ab04. pdf
ham: http://dbpedia.org/resource/Ham in lab04: file:///c:/unibot/comp6721/L
abs/lab04.pdf
mushrooms: http://dbpedia.org/resource/Mushroom in lab04: file:///c:/unibot
/comp6721/Labs/lab04.pdf
gourmet: http://dbpedia.org/resource/Gourmet in lab04: file:///c:/unibot/co
mp6721/Labs/1ab04.pdf
language: http://dbpedia.org/resource/Language in lab04: file:///c:/unibot/
comp6721/Labs/1ab04.pdf
H1: http://dbpedia.org/resource/Histamine H1 receptor in worksheet03: file:
```

///c:/unibot/comp6721/Worksheet/worksheet03.pdf

```
complement: http://dbpedia.org/resource/Ship's company in worksheet03: fil
e:///c:/unibot/comp6721/Worksheet/worksheet03.pdf
spam email: http://dbpedia.org/resource/Email spam in worksheet03: file:///
c:/unibot/comp6721/Worksheet/worksheet03.pdf
training data: http://dbpedia.org/resource/Training, validation, and test s
ets in worksheet03: file:///c:/unibot/comp6721/Worksheet/worksheet03.pdf
metro: http://dbpedia.org/resource/Rapid transit in worksheet03: file:///c:
/unibot/comp6721/Worksheet/worksheet03.pdf
fraud: http://dbpedia.org/resource/Fraud in worksheet03: file:///c:/unibot/
comp6721/Worksheet/worksheet03.pdf
HAM: http://dbpedia.org/resource/Amateur radio in worksheet03: file:///c:/u
nibot/comp6721/Worksheet/worksheet03.pdf
prior probability: http://dbpedia.org/resource/Prior probability in workshe
et03: file:///c:/unibot/comp6721/Worksheet/worksheet03.pdf
email: http://dbpedia.org/resource/Email in worksheet03: file:///c:/unibot/
comp6721/Worksheet/worksheet03.pdf
ham: http://dbpedia.org/resource/Ham in worksheet03: file:///c:/unibot/comp
6721/Worksheet/worksheet03.pdf
conditional probabilities: http://dbpedia.org/resource/Conditional_probabil
ity in worksheet03: file:///c:/unibot/comp6721/Worksheet/worksheet03.pdf
toothache: http://dbpedia.org/resource/Toothache in worksheet03: file:///c:
/unibot/comp6721/Worksheet/worksheet03.pdf
X5: http://dbpedia.org/resource/BMW_X5 in worksheet03: file:///c:/unibot/co
mp6721/Worksheet/worksheet03.pdf
joint probability distribution: http://dbpedia.org/resource/Joint_probabili
ty_distribution in worksheet03: file:///c:/unibot/comp6721/Worksheet/worksh
eet03.pdf
H2: http://dbpedia.org/resource/Hydrogen in worksheet03: file:///c:/unibot/
```

comp6721/Worksheet/worksheet03.pdf

```
backpropagation: http://dbpedia.org/resource/Backpropagation in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf
```

activation function: http://dbpedia.org/resource/Activation_function in sli del2: file:///c:/unibot/comp6721/Slides/slide12.pdf

Bengio: http://dbpedia.org/resource/Yoshua_Bengio in slide12: file:///c:/un ibot/comp6721/Slides/slide12.pdf

banana: http://dbpedia.org/resource/Banana in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

furry: http://dbpedia.org/resource/Furry_fandom in slide12: file:///c:/unib ot/comp6721/Slides/slide12.pdf

Autoencoder: http://dbpedia.org/resource/Autoencoder in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

layer 3: http://dbpedia.org/resource/Network_layer in slide12: file:///c:/u nibot/comp6721/Slides/slide12.pdf

The weight: http://dbpedia.org/resource/The_Weight in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

dog: http://dbpedia.org/resource/Dog in slide12: file://c:/unibot/comp6721
/Slides/slide12.pdf

Google Books: http://dbpedia.org/resource/Google_Books in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

ANN: http://dbpedia.org/resource/Artificial_neural_network in slide12: fil e:///c:/unibot/comp6721/Slides/slide12.pdf

classifier: http://dbpedia.org/resource/Statistical_classification in slide 12: file:///c:/unibot/comp6721/Slides/slide12.pdf

Machine Translation: http://dbpedia.org/resource/Machine_translation in sli del2: file:///c:/unibot/comp6721/Slides/slidel2.pdf

NLP: http://dbpedia.org/resource/Natural_language_processing in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

vector: http://dbpedia.org/resource/Euclidean_vector in slide12: file:///c: /unibot/comp6721/Slides/slide12.pdf

```
vector: http://dbpedia.org/resource/Vector_space in slide12: file:///c:/uni
bot/comp6721/Slides/slide12.pdf
vocab: http://dbpedia.org/resource/Vocab song in slide12: file:///c:/unibot
```

/comp6721/Slides/slide12.pdf

apricot: http://dbpedia.org/resource/Apricot in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

ruby: http://dbpedia.org/resource/Ruby in slide12: file:///c:/unibot/comp67 21/Slides/slide12.pdf

Google News: http://dbpedia.org/resource/Google_News in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

Computer Vision: http://dbpedia.org/resource/Computer_vision in slide12: fi le:///c:/unibot/comp6721/Slides/slide12.pdf

Ng: http://dbpedia.org/resource/Andrew_Ng in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

softmax function: http://dbpedia.org/resource/Softmax_function in slide12:
file:///c:/unibot/comp6721/Slides/slide12.pdf

mouse: http://dbpedia.org/resource/Mouse in slide12: file:///c:/unibot/comp 6721/Slides/slide12.pdf

mouse: http://dbpedia.org/resource/Computer_mouse in slide12: file:///c:/un ibot/comp6721/Slides/slide12.pdf

CNN: http://dbpedia.org/resource/CNN in slide12: file:///c:/unibot/comp6721/Slides/slide12.pdf

python: http://dbpedia.org/resource/Pythonidae in slide12: file:///c:/unibo t/comp6721/Slides/slide12.pdf

feedforward: http://dbpedia.org/resource/Feedforward_neural_network in slid e12: file:///c:/unibot/comp6721/Slides/slide12.pdf

open source: http://dbpedia.org/resource/Open-source_software in lab12: fil e:///c:/unibot/comp6721/Labs/Lab12.pdf

open-source: http://dbpedia.org/resource/Open-source_software in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

```
apple: http://dbpedia.org/resource/Apple in lab12: file:///c:/unibot/comp67 21/Labs/Lab12.pdf
```

backpropagation: http://dbpedia.org/resource/Backpropagation in lab12: fil e:///c:/unibot/comp6721/Labs/Lab12.pdf

tensors: http://dbpedia.org/resource/Tensor in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

Argus: http://dbpedia.org/resource/Argus_Panoptes in lab12: file:///c:/unib ot/comp6721/Labs/Lab12.pdf

livery: http://dbpedia.org/resource/Livery in lab12: file:///c:/unibot/comp 6721/Labs/Lab12.pdf

pi: http://dbpedia.org/resource/Pi in lab12: file:///c:/unibot/comp6721/Lab
s/Lab12.pdf

le cercle: http://dbpedia.org/resource/Le_Cercle in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

library: http://dbpedia.org/resource/Library in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

vocab: http://dbpedia.org/resource/Vocab_song in lab12: file:///c:/unibot/c
omp6721/Labs/Lab12.pdf

LSTM: http://dbpedia.org/resource/Long_short-term_memory in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

CPU: http://dbpedia.org/resource/Central_processing_unit in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

circle: http://dbpedia.org/resource/Circle in lab12: file:///c:/unibot/comp
6721/Labs/Lab12.pdf

milk: http://dbpedia.org/resource/Milk in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

dimension: http://dbpedia.org/resource/Dimension in lab12: file:///c:/unibo
t/comp6721/Labs/Lab12.pdf

tuple: http://dbpedia.org/resource/Tuple in lab12: file:///c:/unibot/comp67
21/Labs/Lab12.pdf

```
softmax: http://dbpedia.org/resource/Softmax_function in lab12: file:///c:/
unibot/comp6721/Labs/Lab12.pdf
```

function: http://dbpedia.org/resource/Protein in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

function: http://dbpedia.org/resource/Stochastic_process in lab12: file:///
c:/unibot/comp6721/Labs/Lab12.pdf

function: http://dbpedia.org/resource/Subroutine in lab12: file:///c:/unibo
t/comp6721/Labs/Lab12.pdf

paris: http://dbpedia.org/resource/Paris in lab12: file:///c:/unibot/comp67
21/Labs/Lab12.pdf

trigrams: http://dbpedia.org/resource/Bagua in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

weed: http://dbpedia.org/resource/Weed in lab12: file:///c:/unibot/comp6721
/Labs/Lab12.pdf

server: http://dbpedia.org/resource/Web_server in lab12: file:///c:/unibot/comp6721/Labs/Lab12.pdf

tennis: http://dbpedia.org/resource/Tennis in lab12: file:///c:/unibot/comp 6721/Labs/Lab12.pdf

blood: http://dbpedia.org/resource/Blood in lab12: file:///c:/unibot/comp67 21/Labs/Lab12.pdf

gradient: http://dbpedia.org/resource/Gradient_descent in lab12: file:///c: /unibot/comp6721/Labs/Lab12.pdf

gradient: http://dbpedia.org/resource/Gradient in lab12: file:///c:/unibot/ comp6721/Labs/Lab12.pdf

API: http://dbpedia.org/resource/Application_programming_interface in lab1 2: file:///c:/unibot/comp6721/Labs/Lab12.pdf

perceptron: http://dbpedia.org/resource/Perceptron in worksheet05: file:///
c:/unibot/comp6721/Worksheet/worksheet05.pdf

w14: http://dbpedia.org/resource/W_postcode_area in worksheet05: file:///c:/unibot/comp6721/Worksheet/worksheet05.pdf

```
bias: http://dbpedia.org/resource/Bias in worksheet05: file:///c:/unibot/co
mp6721/Worksheet/worksheet05.pdf
neurons: http://dbpedia.org/resource/Neuron in worksheet05: file:///c:/unib
ot/comp6721/Worksheet/worksheet05.pdf
neurons: http://dbpedia.org/resource/Artificial neuron in worksheet05: fil
e:///c:/unibot/comp6721/Worksheet/worksheet05.pdf
neurons: http://dbpedia.org/resource/Artificial neural network in worksheet
05: file:///c:/unibot/comp6721/Worksheet/worksheet05.pdf
Activation function: http://dbpedia.org/resource/Activation_function in wor
ksheet05: file:///c:/unibot/comp6721/Worksheet/worksheet05.pdf
Delta: http://dbpedia.org/resource/Delta Air Lines in worksheet05: file:///
c:/unibot/comp6721/Worksheet/worksheet05.pdf
error terms: http://dbpedia.org/resource/Errors and residuals in worksheet0
5: file:///c:/unibot/comp6721/Worksheet/worksheet05.pdf
sign function: http://dbpedia.org/resource/Sign function in worksheet05: fi
1e:///c:/unibot/comp6721/Worksheet/worksheet05.pdf
algorithm: http://dbpedia.org/resource/Algorithm in lab06: file:///c:/unibo
t/comp6721/Labs/Lab06.pdf
perceptron: http://dbpedia.org/resource/Perceptron in lab06: file:///c:/uni
bot/comp6721/Labs/Lab06.pdf
backpropagation: http://dbpedia.org/resource/Backpropagation in lab06: fil
e:///c:/unibot/comp6721/Labs/Lab06.pdf
activation function: http://dbpedia.org/resource/Activation_function in lab
06: file:///c:/unibot/comp6721/Labs/Lab06.pdf
binary representation: http://dbpedia.org/resource/Binary_number in lab06:
file:///c:/unibot/comp6721/Labs/Lab06.pdf
X6: http://dbpedia.org/resource/BMW X6 in lab06: file:///c:/unibot/comp6721
/Labs/Lab06. pdf
X3: http://dbpedia.org/resource/BMW X3 in lab06: file:///c:/unibot/comp6721
```

/Labs/Lab06. pdf

```
training data: http://dbpedia.org/resource/Training,_validation,_and_test_s
ets in lab06: file:///c:/unibot/comp6721/Labs/Lab06.pdf
feature vector: http://dbpedia.org/resource/Feature machine learning in lab
06: file:///c:/unibot/comp6721/Labs/Lab06.pdf
architecture: http://dbpedia.org/resource/Software architecture in lab06: f
ile:///c:/unibot/comp6721/Labs/Lab06.pdf
architecture: http://dbpedia.org/resource/Architecture in lab06: file:///c:
/unibot/comp6721/Labs/Lab06.pdf
rerun: http://dbpedia.org/resource/Rerun in lab06: file:///c:/unibot/comp67
21/Labs/Lab06.pdf
classifier: http://dbpedia.org/resource/Statistical classification in lab0
6: file:///c:/unibot/comp6721/Labs/Lab06.pdf
Pay attention: http://dbpedia.org/resource/Pay Attention in lab06: file:///
c:/unibot/comp6721/Labs/Lab06.pdf
neurons: http://dbpedia.org/resource/Neuron in lab06: file:///c:/unibot/com
p6721/Labs/Lab06. pdf
neurons: http://dbpedia.org/resource/Artificial neuron in lab06: file:///c:
/unibot/comp6721/Labs/Lab06.pdf
neurons: http://dbpedia.org/resource/Artificial_neural_network in lab06: fi
le:///c:/unibot/comp6721/Labs/Lab06.pdf
sigmoid: http://dbpedia.org/resource/Sigmoid function in lab06: file:///c:/
unibot/comp6721/Labs/Lab06.pdf
cross-validation: http://dbpedia.org/resource/Cross-validation_statistics i
n lab06: file:///c:/unibot/comp6721/Labs/Lab06.pdf
tuple: http://dbpedia.org/resource/Tuple in lab06: file:///c:/unibot/comp67
21/Labs/Lab06. pdf
function: http://dbpedia.org/resource/Protein in lab06: file:///c:/unibot/c
omp6721/Labs/Lab06.pdf
function: http://dbpedia.org/resource/Stochastic process in lab06: file:///
c:/unibot/comp6721/Labs/Lab06.pdf
```

function: http://dbpedia.org/resource/Subroutine in lab06: file:///c:/unibot/comp6721/Labs/Lab06.pdf

Alison: http://dbpedia.org/resource/Alison_DiLaurentis in lab06: file:///c:/unibot/comp6721/Labs/Lab06.pdf

false negatives: http://dbpedia.org/resource/False_positives_and_false_negatives in lab06: file:///c:/unibot/comp6721/Labs/Lab06.pdf

binary classification: http://dbpedia.org/resource/Binary_classification in lab06: file:///c:/unibot/comp6721/Labs/Lab06.pdf

biology: http://dbpedia.org/resource/Biology in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

Perceptron: http://dbpedia.org/resource/Perceptron in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

Papert: http://dbpedia.org/resource/Seymour_Papert in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

Wikipedia: http://dbpedia.org/resource/Main_Page in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

Wikipedia: http://dbpedia.org/resource/Wikipedia in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

transfer function: http://dbpedia.org/resource/Transfer_function in slide0 6: file:///c:/unibot/comp6721/Slides/slide06.pdf

activation function: http://dbpedia.org/resource/Activation_function in sli de06: file:///c:/unibot/comp6721/Slides/slide06.pdf

Gail: http://dbpedia.org/resource/Gail_McIntyre in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

epoch: http://dbpedia.org/resource/Epoch in slide06: file:///c:/unibot/comp 6721/Slides/slide06.pdf

decision tree: http://dbpedia.org/resource/Decision_tree in slide06: file:/
//c:/unibot/comp6721/Slides/slide06.pdf

hyperplane: http://dbpedia.org/resource/Hyperplane in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf

```
hidden node: http://dbpedia.org/resource/Hidden node problem in slide06: fi
le:///c:/unibot/comp6721/Slides/slide06.pdf
derivative: http://dbpedia.org/resource/Derivative in slide06: file:///c:/u
nibot/comp6721/Slides/slide06.pdf
false positive: http://dbpedia.org/resource/False positives and false negat
ives in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf
human brain: http://dbpedia.org/resource/Human brain in slide06: file:///c:
/unibot/comp6721/Slides/slide06.pdf
synapses: http://dbpedia.org/resource/Synapse in slide06: file:///c:/unibot
/comp6721/Slides/slide06.pdf
W13: http://dbpedia.org/resource/W postcode area in slide06: file:///c:/uni
bot/comp6721/Slides/slide06.pdf
neurons: http://dbpedia.org/resource/Neuron in slide06: file:///c:/unibot/c
omp6721/Slides/slide06.pdf
neurons: http://dbpedia.org/resource/Artificial_neuron in slide06: file:///
c:/unibot/comp6721/Slides/slide06.pdf
neurons: http://dbpedia.org/resource/Artificial neural network in slide06:
file:///c:/unibot/comp6721/Slides/slide06.pdf
local minimum: http://dbpedia.org/resource/Maxima and minima in slide06: fi
le:///c:/unibot/comp6721/Slides/slide06.pdf
W23: http://dbpedia.org/resource/W19_nuclear_artillery_shell in slide06: fi
le:///c:/unibot/comp6721/Slides/slide06.pdf
Handwritten: http://dbpedia.org/resource/Handwriting in slide06: file:///c:
/unibot/comp6721/Slides/slide06.pdf
neurotransmitters: http://dbpedia.org/resource/Neurotransmitter in slide06:
file:///c:/unibot/comp6721/Slides/slide06.pdf
phoneme: http://dbpedia.org/resource/Phoneme in slide06: file:///c:/unibot/
comp6721/Slides/slide06.pdf
Alison: http://dbpedia.org/resource/Alison_DiLaurentis in slide06: file:///
```

c:/unibot/comp6721/S1ides/s1ide06.pdf

```
Backpropagation: http://dbpedia.org/resource/Backpropagation in slide06: fi
le:///c:/unibot/comp6721/Slides/slide06.pdf
decision boundaries: http://dbpedia.org/resource/Decision boundary in slide
06: file:///c:/unibot/comp6721/Slides/slide06.pdf
SGD: http://dbpedia.org/resource/Singapore dollar in slide06: file:///c:/un
ibot/comp6721/Slides/slide06.pdf
XOR: http://dbpedia.org/resource/Exclusive or in slide06: file:///c:/unibot
/comp6721/Slides/slide06.pdf
rule-based system: http://dbpedia.org/resource/Rule-based_machine_translati
on in slide06: file:///c:/unibot/comp6721/Slides/slide06.pdf
pixel: http://dbpedia.org/resource/Pixel in slide06: file:///c:/unibot/comp
6721/Slides/slide06.pdf
gradient: http://dbpedia.org/resource/Gradient descent in slide06: file:///
c:/unibot/comp6721/S1ides/s1ide06.pdf
gradient: http://dbpedia.org/resource/Gradient in slide06: file:///c:/unibo
t/comp6721/Slides/slide06.pdf
feedforward: http://dbpedia.org/resource/Feedforward neural network in slid
e06: file:///c:/unibot/comp6721/Slides/slide06.pdf
sign function: http://dbpedia.org/resource/Sign_function in slide06: file:/
//c:/unibot/comp6721/Slides/slide06.pdf
minimax: http://dbpedia.org/resource/Minimax in lab03: file:///c:/unibot/co
mp6721/Labs/1ab03.pdf
pruning: http://dbpedia.org/resource/Pruning in lab03: file:///c:/unibot/co
mp6721/Labs/1ab03.pdf
algorithm: http://dbpedia.org/resource/Algorithm in lab03: file:///c:/unibo
t/comp6721/Labs/1ab03.pdf
game-tree: http://dbpedia.org/resource/Game tree in lab03: file:///c:/unibo
t/comp6721/Labs/1ab03.pdf
game tree: http://dbpedia.org/resource/Game tree in lab03: file:///c:/unibo
t/comp6721/Labs/1ab03.pdf
```

```
prune: http://dbpedia.org/resource/Decision tree pruning in lab03: file:///
c:/unibot/comp6721/Labs/1ab03.pdf
prune: http://dbpedia.org/resource/Prune in lab03: file:///c:/unibot/comp67
21/Labs/1ab03. pdf
H: http://dbpedia.org/resource/Hydrogen in lab03: file:///c:/unibot/comp672
1/Labs/1ab03.pdf
tree: http://dbpedia.org/resource/Tree in lab03: file:///c:/unibot/comp6721
/Labs/lab03.pdf
evaluation function: http://dbpedia.org/resource/Evaluation_function in lab
03: file:///c:/unibot/comp6721/Labs/lab03.pdf
minimax: http://dbpedia.org/resource/Minimax in slide03: file:///c:/unibot/
comp6721/S1ides/s1ide03.pdf
branching factor: http://dbpedia.org/resource/Branching factor in slide03:
file:///c:/unibot/comp6721/Slides/slide03.pdf
complete game: http://dbpedia.org/resource/Complete game in slide03: file:/
//c:/unibot/comp6721/Slides/slide03.pdf
algorithm: http://dbpedia.org/resource/Algorithm in slide03: file:///c:/uni
bot/comp6721/Slides/slide03.pdf
chess: http://dbpedia.org/resource/Chess in slide03: file:///c:/unibot/comp
6721/Slides/slide03.pdf
AlphaGo: http://dbpedia.org/resource/AlphaGo in slide03: file:///c:/unibot/
comp6721/S1ides/s1ide03.pdf
Stratego: http://dbpedia.org/resource/Stratego in slide03: file:///c:/unibo
t/comp6721/Slides/slide03.pdf
Zero-Sum Game: http://dbpedia.org/resource/Zero-sum game in slide03: file:/
//c:/unibot/comp6721/Slides/slide03.pdf
game-tree: http://dbpedia.org/resource/Game tree in slide03: file:///c:/uni
bot/comp6721/Slides/slide03.pdf
game tree: http://dbpedia.org/resource/Game tree in slide03: file:///c:/uni
bot/comp6721/Slides/slide03.pdf
```

```
GB: http://dbpedia.org/resource/Gigabyte in slide03: file:///c:/unibot/comp 6721/Slides/slide03.pdf
```

Exhaustive search: http://dbpedia.org/resource/Brute-force_search in slide0 3: file:///c:/unibot/comp6721/Slides/slide03.pdf

 $probability: \ http://dbpedia.\ org/resource/Conditional_probability\ in\ slide 0.$

3: file:///c:/unibot/comp6721/Slides/slide03.pdf

probability: http://dbpedia.org/resource/Probability in slide03: file:///c: /unibot/comp6721/Slides/slide03.pdf

RISC: http://dbpedia.org/resource/Reduced_instruction_set_computer in slide 03: file:///c:/unibot/comp6721/Slides/slide03.pdf

The Prisoner: http://dbpedia.org/resource/The_Prisoner in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

tensor: http://dbpedia.org/resource/Tensor in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Perfect Information: http://dbpedia.org/resource/Perfect_information in sli de03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Battleship: http://dbpedia.org/resource/Battleship in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Ke Jie: http://dbpedia.org/resource/Ke_Jie in slide03: file:///c:/unibot/co
mp6721/Slides/slide03.pdf

CPU: http://dbpedia.org/resource/Central_processing_unit in slide03: file://c:/unibot/comp6721/Slides/slide03.pdf

neurons: http://dbpedia.org/resource/Neuron in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

neurons: http://dbpedia.org/resource/Artificial_neuron in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

neurons: http://dbpedia.org/resource/Artificial_neural_network in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Backgammon: http://dbpedia.org/resource/Backgammon in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Pruning: http://dbpedia.org/resource/Pruning in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Othello: http://dbpedia.org/resource/Othello in slideO3: file:///c:/unibot/comp6721/Slides/slideO3.pdf

Nim: http://dbpedia.org/resource/Nim in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

EXPECTIMINIMAX: http://dbpedia.org/resource/Expectiminimax in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

dice: http://dbpedia.org/resource/Dice in slide03: file:///c:/unibot/comp67
21/Slides/slide03.pdf

five-game match: http://dbpedia.org/resource/AlphaGo_versus_Lee_Sedol in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Deep Junior: http://dbpedia.org/resource/Junior_chess in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Monte Carlo tree search: http://dbpedia.org/resource/Monte_Carlo_tree_search in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Marion Tinsley: http://dbpedia.org/resource/Marion_Tinsley in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Monopoly: http://dbpedia.org/resource/Monopoly in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Max: http://dbpedia.org/resource/Comet_Man in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Max: http://dbpedia.org/resource/Max_Branning in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

AlphaGo Zero: http://dbpedia.org/resource/AlphaGo_Zero in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

heuristic function: http://dbpedia.org/resource/Heuristic_computer_science in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Lee Se-dol: http://dbpedia.org/resource/Lee_Sedol in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf

Kasparov: http://dbpedia.org/resource/Garry Kasparov in slide03: file:///c: /unibot/comp6721/Slides/slide03.pdf VLSI: http://dbpedia.org/resource/Very Large Scale Integration in slide03: file:///c:/unibot/comp6721/Slides/slide03.pdf Alberta: http://dbpedia.org/resource/Alberta in slide03: file:///c:/unibot/ comp6721/Slides/slide03.pdf algorithm: http://dbpedia.org/resource/Algorithm in worksheet02: file:///c: /unibot/comp6721/Worksheet/worksheet02.pdf root: http://dbpedia.org/resource/Zero_of_a_function in worksheet02: file:/ //c:/unibot/comp6721/Worksheet/worksheet02.pdf 5. what is Bo Wang's Email? Bo Wang's email is bowang@condordia.ca 6. what are the suggested readings for COMP 6741? Here are the suggested reading's URL: https://newscatcherapi.com/blog/spacy-matcher-mining-financial-stock-news https://techblog.wikimedia.org/2020/03/24/computational-knowledge-wikidatawikidata-query-service-and-women-who-are-mayors https://datajournalism.com/read/longreads/the-promise-of-wikidata https://stanford.edu/~shervine/teaching/cs-229/refresher-algebra-calculus https://en.wikipedia.org/wiki/Precision_and_recall https://en.wikipedia.org/wiki/K-means_clustering https://www.datacamp.com/community/tutorials/k-nearest-neighbor-classificat

7. how many credits Bo Wang gained at Concordia?
Bo Wang gained 8 credits

ion-scikit-learn

- 8. how many lectures are in COMP 6741? COMP6741 contains 11 lectures
- 9. how many courses did Bo Wang attend at Concordia?
 Bo Wang attended 2 courses
- 10. how many credits is course COMP 6741 worth? COMP6741 is worth 4 credits

11. which topics are covered in Lab #4 of COMP 6721?

koko: http://dbpedia.org/resource/Koko the Clown

algorithm: http://dbpedia.org/resource/Algorithm

kotuku: http://dbpedia.org/resource/Great egret

probability: http://dbpedia.org/resource/Conditional probability

probability: http://dbpedia.org/resource/Probability

training data: http://dbpedia.org/resource/Training,_validation,_and_test_s

ets

feature vector: http://dbpedia.org/resource/Feature machine learning

prior probabilities: http://dbpedia.org/resource/Prior_probability

classifier: http://dbpedia.org/resource/Statistical classification

HAM: http://dbpedia.org/resource/Amateur_radio

email: http://dbpedia.org/resource/Email

ham: http://dbpedia.org/resource/Ham

mushrooms: http://dbpedia.org/resource/Mushroom

gourmet: http://dbpedia.org/resource/Gourmet

language: http://dbpedia.org/resource/Language

12, Can you list all related course content for knowledge graph? knowledge graph is covered in COMP6741->lecture3->lab03->file:///C:/unibot/COMP474 6741/Labs/Lab03.pdf

knowledge graph is covered in COMP6741->lecture3->worksheet02->file:///C:/unibot/COMP474_6741/Worksheet/worksheet02.pdf

knowledge graph is covered in COMP6741->lecture2->worksheet01->file:///C:/unibot/COMP474 6741/Worksheet/worksheet01.pdf

knowledge graph is covered in COMP6741->lecture2->slide02->file:///C:/unibot/COMP474 6741/Slides/slides02.pdf

knowledge graph is covered in COMP6741->lecture5->lab05->file:///C:/unibot/COMP474_6741/Labs/Lab05.pdf

knowledge graph is covered in COMP6741->lecture5->worksheet04->file:///C:/unibot/COMP474 6741/Worksheet/worksheet04.pdf

knowledge graph is covered in COMP6741->lecture5->other material->https://techblog.wikimedia.org/2020/03/24/computational-knowledge-wikidata-wikidata-query-service-and-women-who-are-mayors

knowledge graph is covered in COMP6741->lecture5->other material->https://d atajournalism.com/read/longreads/the-promise-of-wikidata

knowledge graph is covered in COMP6741->lecture11->lab11->file:///C:/unibot/COMP474_6741/Labs/Lab11.pdf

knowledge graph is covered in COMP6741->lecture10->lab10->file:///C:/unibot/COMP474 6741/Labs/Lab10.pdf

knowledge graph is covered in COMP6741->lecture4->worksheet03->file:///C:/unibot/COMP474_6741/Worksheet/worksheet03.pdf

knowledge graph is covered in COMP6741->lecture8->worksheet07->file:///C:/unibot/COMP474_6741/Worksheet/worksheet07.pdf

knowledge graph is covered in COMP6741->lecture8->slide08->file:///C:/unibot/COMP474 6741/Slides/slides08.pdf

knowledge graph is covered in COMP6721->lecture8->lab08->file:///c:/unibot/comp6721/Labs/Lab08.pdf

knowledge graph is covered in COMP6721->lecture8->slide08->file:///c:/unibot/comp6721/Slides/slide08.pdf

knowledge graph is covered in COMP6721->lecture9->lab09->file:///c:/unibot/
comp6721/Labs/Lab09.pdf
knowledge graph is covered in COMP6721->lecture9->slide09->file:///c:/unibo
t/comp6721/Slides/slide09.pdf

- 13. how many triples in total? there are totally 18599 triples
- 14. how many distinct triples in total? there are totally 1167 triples
- 15. how many courses in total? there are totally 1715 courses
- 16. how many topics in total? there are totally 1167 topics