

## Methods and Tools

- [Colaboratory](#) for collaborative jupyter notebooks (helpful for working in groups)
  - Example:  
[https://colab.research.google.com/drive/1ux\\_7jtsoOB\\_FVZF3MA1cPKSNEWXB L7L?authuser=1#scrollTo=4hg9VvS2PmzZ](https://colab.research.google.com/drive/1ux_7jtsoOB_FVZF3MA1cPKSNEWXB L7L?authuser=1#scrollTo=4hg9VvS2PmzZ)
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- [Owlready2](#) for building ontologies in Python
- SANSa-Stack <http://sansa-stack.net> (Semantic Analysis stacks)
- SciGraph <https://github.com/SciGraph/SciGraph> (Ontologies + Neo4J graph operations)
- Blog: <https://neo4j.com/blog/using-owl-with-neo4j/>
- OWL API <http://owlcs.github.io/owlapi/>
- Protege, Web Protege, SWRL plugin, VOWL plugin etc.
- [BlazeGraph](#), [Stardog](#), [GraphDB](#), other SPARQL triplestores/graph databases
- MedEx, MetaMap, (NLP+Medical Data+Publications+UMLS tools, etc.)
- (Advanced semantic web tools) [RdfLib](#), [SPARQLWrapper](#), [Triple Pattern Fragments](#), [HDT](#)
- Knowledge Graph Embeddings  
<https://gist.github.com/mommi84/07f7c044fa18aaaa7b5133230207d8d4>  
<https://datalab.rwth-aachen.de/embedding/RDF2Vec/>
- General Resources on [Data Programming](#):
  - A few [tutorials](#) and [more](#) on [Snorkel](#)

## Data and Ontologies

- <https://www.ebi.ac.uk/rdf/>
- Linked Data in Biomedicine <http://download.bio2rdf.org/files/release/3/release.html>
- Ontology Lookup service <https://www.ebi.ac.uk/ols/index> (has an R package)
- BioPortal (WebUI/API), NCBO Resource Index  
<https://www.bioontology.org/resources-index>
- BiOnIC User Interactions Catalogue (for all those deep learning folks/machine learning folks who want to work on user recommendations) <http://onto-apps.stanford.edu/bionic>
- <https://developers.google.com/knowledge-graph/>
- Old.datahub.io (has links to several resources, not well maintained)
- Gene Ontology, Human Phenotype Ontology, Disease Ontology, Drug Ontology, UMLS terminologies, etc.
- [NCBI Databases](#)
- [APIs to the National Library of Medicine Resources](#)