Welcome to UD

Course Structure

Web 3 Science: Knowledge & Semantics

Fall 2018

Notice: This course is a graduate-level course, advanced undergraduate students can take the course in case of high motivation and having interest in cutting-edge areas and research

Scheduling: MWF: 11:15 pm - 12:05 pm
Venue: MH 205

Assistant Professor: **Dr. Saeedeh Shekarpour**
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Teacher Assistant: **Sunday Ngwobia**
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Course Description

In this course, the following subjects will be presented:

- ➔ Technologies for developing Knowledge Graphs including:
  - ◆ Semantic Web Technologies: RDF and RDFS
  - ◆ Ontology Engineering
  - ◆ SPARQL Language
- ➔ The major concepts for interlinking knowledge graphs and measuring the quality of data
  - ◆ Linked Data
  - ◆ Open Data
  - ◆ Data Quality
- ➔ Techniques for Knowledge Graph Development and Analytics
  - ◆ Knowledge graph construction
  - ◆ Knowledge graph analytics

Text Resources

- ➔ This topic is a state-of-the-art topic. Thus, I do not rely on a typical textbook, we will explore lots of online resources including W3c recommendations, research papers …
- ➔ During the course, I will upload the link of the resources and our slides.

Grading Schema

Quiz 1&2 + Final Exam …….. 50% Project ……..…… 25% Paper Presentation …… 25% Class Activities …..…...…… extra credit	
Total ……..……..……	100% >>
Grades will range from A through F. The following is the breakdown for grading: 94 - 100 = A 90 – 93 = A- 87 – 89 = B+ 84 – 86 = B 83 – 83 = B- 77 – 79 =C+ 74 - 76 = C 70 - 73 = C- 67 - 69 = D+ 64 - 66 = D 60 - 63 = D- Below 60 is an F	

Important Statements:

- ➔ **Academic Honesty:** You are allowed to collaborate and discuss with other students or search online, but you are not allowed to copy under any circumstances, any case of plagiarism will cause F for all the involving students.
- ➔ Your class activity and presence is a **must**, the more activity the more credit.
- ➔ Projects should be done individually.
- ➔ Paper presentations are a group activities. Each group has 2 members.
- ➔ Please bring your notebook to Lab sessions.

Course Requirements:

- ➔ Prior and fresh knowledge in programming especially in Java.
- ➔ Please install a Java Editor e.g., Eclipse on your laptop

Course Syllabus

Month	Week	Topic	Requirements
August 2018	Week 1	Intro & Motivation	
	Week 2	RDF & RDF Schema (RDFS)	
September 2018	Week 3	RDF & RDF Schema (RDFS) Lab 1 Quiz 1	Import Jena Library into your Java IDE https://jena.apache.org/
	Week 4	Ontology Engineering Lab 2	Download Desktop version of Protege or make an account on the online Version https://protege.stanford.edu/
	Week 5	Project Delivery - Part 1 Quiz 2	Please add your name and domain in the following link https://docs.google.com/spreadsheets/d/18tiqKCeHPc6slVf1Np6PlEde2Q9tB9lzr0RZpTZeMtI/edit?usp=sharing
	Week 6		
October 2018	Week 7	SPARQL Lab 3	
	Week 8	SPARQL Lab 4 SPARQL Update Lab 5	You can install an open source triple store: https://en.wikipedia.org/wiki/Comparison_of_triplestores Stardog seems easier: https://www.stardog.com/docs/
	Week 9		
	Week 10	Linked Data Open Data Data Quality	
	Week 11	Project Delivery - Part 2	
November 2018	Week 12		
	Week 13	Knowledge Graph Construction and Analytics	
	Week 14	**Paper Presentation** Please add the names, title and link to the paper in the following excel sheet: **https://docs.google.com/spreadsheets/???**	
	Week 15		
December 2018	Week 16		