

CMSC 491/691

Knowledge Graphs

Administrivia

Fall 2019

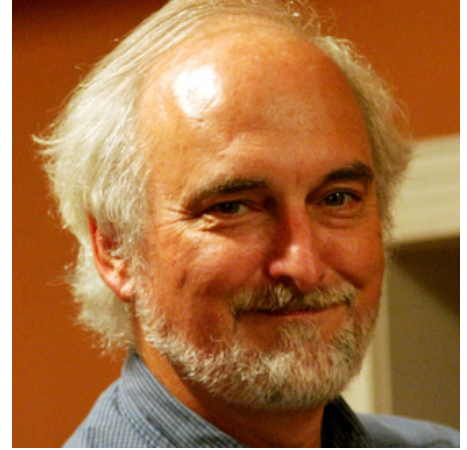
Course Objectives

- Understand concepts, motivation, goals underlying knowledge graphs (KGs)
- Gain familiarity with popular property graphs like Neo4j
- In-depth understanding of Semantic Web (SW) languages & tools
- Ability to create & use ontologies & schemas using SW languages
- Familiarity with major usecases: Wikidata, Google knowledge graph, schema.org
- Create, consume and manipulate KG data
- Ability to define and implement a KG project

Grading

- Grades will be based on homework, quizzes, exams and a project
- 5-6 short **homework** assignments
 - Submissions will be via github classroom
- **Project** (individual or group) with *proposal* and *final report*
- **Midterm**, comprehensive **final**, possible **quizzes** on readings
- Probable weighting: 40% homework, 15% project, 10% quizzes, 15% midterm, 20% final

Instructor availability



Instructor: Professor [Tim Finin](#)

- Pronounced like *fine + in*, not like *fin + in*
- Office: ITE329, finin@umbc.edu, phone:410-455-3522
- Office hours: Tuesday 12-1; Wednesday 10-11
- Direct general questions (i.e., those that other students may also have and that a Web search can't answer) to Piazza first
- We'll try to respond to postings on the discussion list or private email messages within 24 hours

Programming, etc.

- Homework requires using various systems/tools
- We'll use GitHub Classroom for starter code & submissions
- Some will require programming; can be done in any language (e.g., Java, Python); Python preferred
- Examples demonstrated in Unix (Linux or MAC OS X); most can be made to work on Windows
- A web server on your computer may be useful

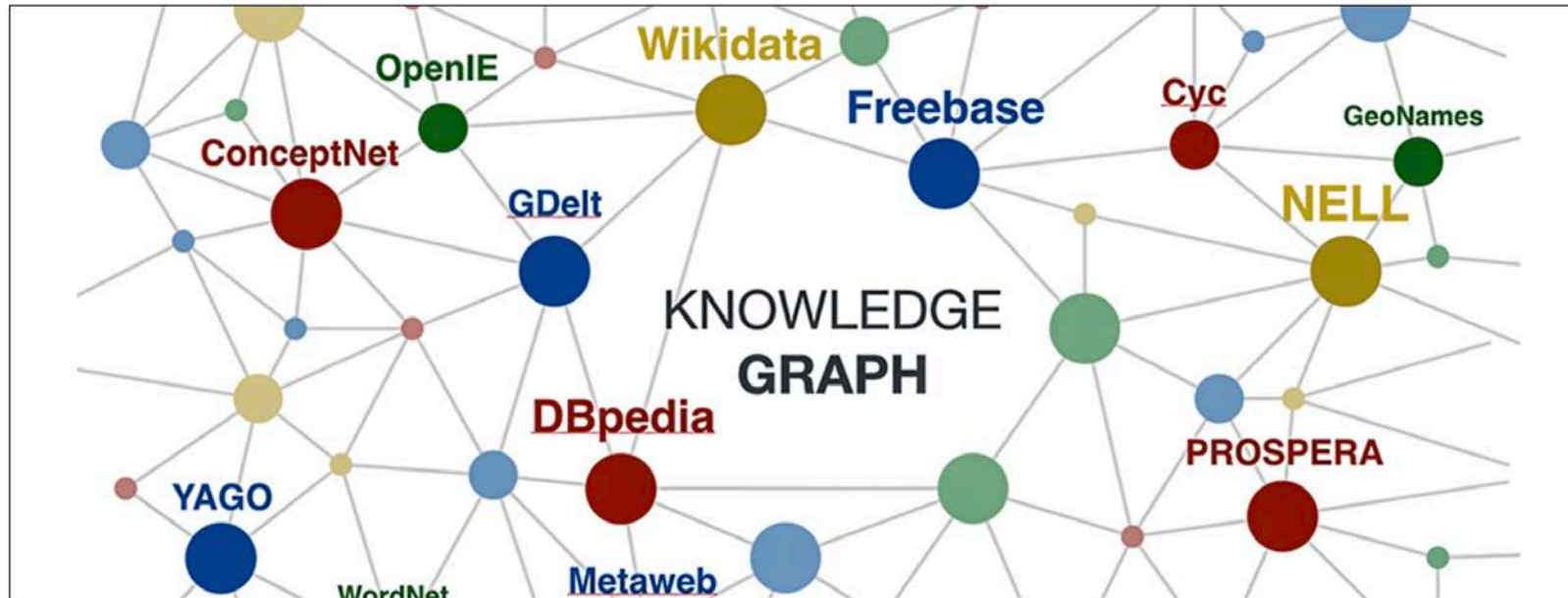
Web Site: <http://bit.ly/691f19>



UMBC CMSC 491/691 (07) Fall 2019

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CMSC 491/691 (section 07) is a special topics course offered at UMBC in the fall of 2019. It meets from 4:00-5:15pm in FA 306. It is available to advanced undergraduates and graduate students. The course will introduce the notion of the Semantic Web, provide an overview of the underlying theory and technology, cover existing tools and practices, and highlight current and potential applications. The course will be approximately half lecture and half seminar. Students will be expected to read,

[Semantic Web Links](#)

[A python implementation of RDF2Vec](#)
A python implementation of RDF2Vec