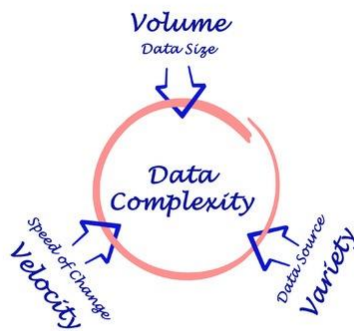


Large-scale Data Management (Big Data)



Fall 2017

CS 4243 sec. 001/

CS 5493 sec. 001

Instructor:

Professor Michael Gubanov

mikhail.gubanov@utsa.edu

Location, Time:

TR: 4:00-5:15 p.m.

AET 0.214



Large-scale Data Management broadly refers to Systems, Algorithms, and Infrastructure used to efficiently access and manage "Big Data". "Big Data" challenges are often classified using 3V's: Too much data (Volume), data are coming from too many sources (Variety), or data are appearing too fast (Velocity) [Stonebraker NIST'10].

In this course, I am planning to briefly review classic Data Management foundations and systems and then switch gears to large-scale data management, fusion, and analytics, systems and infrastructures. We will discuss how to access and analyze Big Data efficiently, as well as work with heterogeneous data sources at scale. As time permits, we will also learn about recently emerged distributed large-scale analytics platforms. Student teams will complete projects to gain practical insights and experience (depending on TA and Grader assignment).

Who should take the course?

Graduate students and upper-level undergraduate students in Computer Science interested in state-of-the-art Large-scale Data Management and Analytics Systems. Undergraduate students should have taken Systems Programming (CS 3423) and Application Programming (CS 3443). Graduate students should have taken an equivalent course or contact the instructor at mikhail.gubanov@utsa.edu.

***Cloud Technology Endowed Professor Michael Gubanov** joined University of Texas, San Antonio (UTSA) in 2015. He earned his Ph.D. in Computer Science and Engineering from the **University of Washington** in 2010. After that he spent some time as a Postdoctoral Associate at **MIT CSAIL** working on Large-scale Data Management. During his PhD study he also worked at IBM Almaden Research Center, Google, and Microsoft Research on Data Management, Fusion, Web-search, Machine Learning, and Natural Language Processing. Results of his work were productized as a part of Google Product Search (<http://www.google.com/shopping>), IBM Clio, and Microsoft Bing! Local (<http://www.bing.com/local>). At UTSA he founded BigLab! (<http://www.mgubanov.com>). He is a recipient of a NASHP Young Investigator Award, 2015; IEEE Sensors Best Paper Award, 2016; IEEE ICDE Best Paper Award, 2017.