

Big Data Management and Analytics Systems

Spring 2019

Instructor:

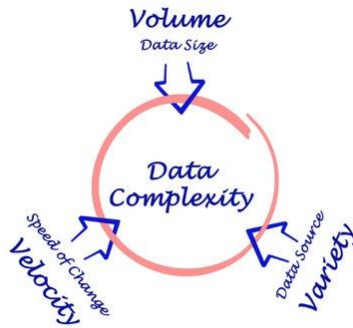
Professor Michael Gubanov

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Location, Time:

TR: 2:00-3:15 p.m.

LOV 301



“Big Data” broadly refers to Systems, Algorithms, and Infrastructure used to efficiently access and manage large-scale and heterogeneous data sets (e.g. Web). “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). Project teams from the previous offering of this course at U Texas landed 4 publications in a major Big Data conference in 2017 and went to present in Boston, MA.

Who should take the course?

Graduate students and upper-level undergraduate students in Computer Science interested in state-of-the-art “Big Data” and Analytics Systems. Undergraduate students should have taken most undergraduate Computer Science courses. Graduate students should have taken equivalent undergraduate/graduate courses.

*Assistant Professor Michael Gubanov joined **Florida State University (FSU)** in 2018. Before, he spent 2 wonderful years at **University of Texas** as an (Endowed) Assistant Professor. He earned his Ph.D. in Computer Science and Engineering from the **University of Washington (UW)** and did his postdoctoral research at **Massachusetts Institute of Technology (MIT)**. He also worked at **IBM Almaden** Research Center, **Google**, and **Microsoft Research**. 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>). He is a recipient of a NASHP Young Investigator Award, 2015; IEEE Sensors Best Paper Award, 2016; IEEE ICDE Best Paper Award, 2017, ACM SIGMOD Research Highlight Award 2018, co-author of more than 40 peer-reviewed Computer Science publications.