This learning experience will be jointly instructed by Professors Yi Shang and Dong Xu of the MU Electrical Engineering and Computer Science Department.



Dr. Shang is a Professor, Associate Chair, and Director of Graduate Studies in the EECS Department. He has published more than 180 refereed papers in international journals and conferences in the fields of artificial intelligence, mobile and distributed computing, bioinformatics, and wireless sensor networks, and holds 6 U.S. patents. He has worked as a researcher at the University of Illinois at Urbana-Champaign and the renowned Xerox Palo Alto Research Center (PARC), Palo Alto, CA. He has received research funding from the National Science Foundation, National Institutes of Health, the U.S. Army, DARPA, Microsoft, and Raytheon.

Dr. Shang received this BS degree from the University of Science and Technology of China, MS from Chinese Academy of Sciences, and PhD from University of Illinois at Urbana-Champaign in 1997. He is a lifetime member of ACM and senior member of IEEE.



Dong Xu is James C. Dowell Professor of the EECS Department, Director of Information Technology Program, with appointments in the Christopher S. Bond Life Sciences Center and the Informatics Institute at the University of Missouri-Columbia. He obtained his PhD from the University of Illinois, Urbana-Champaign in 1995 and did two years of postdoctoral work at the US National Cancer Institute. He was a Staff Scientist at Oak Ridge National Laboratory until 2003 before joining the University of Missouri, where he served as Department Chair of Computer Science during 2007-2016. He has published about 300 papers. He is Associate Editor-in-Chief of "IEEE/ACM Transactions on Computational Biology and Bioinformatics." He was elected to the rank of American Association for the Advancement of Science (AAAS) Fellow in 2015.



College of Engineering

Department of Electrical Engineering & Computer Science

Big Data Analytics
Summer Program 2018

July 8 – July 29, 2018

Please visit the following website to register prior to June 15, 2018:

http://engineering.missouri.edu/cs/about/big-data-analytics-summer-experience/big-data-analytics-registration-form/



- Big Data is transforming science, engineering, medicine, healthcare, finance, business, and ultimately society itself.
- Big Data analytics represents a new era of computing, where data in any format may be processed and
 exploited to extract insights for industries and organizations to make informed decisions, whether that
 data is in-place or at-rest, in large volume, structured or unstructured.
- This program will introduce several key Big Data processing and analytics technologies, teach practical skills and practices, and offer hand-on experiences using Amazon Web services, IBM Bluemix cloud platform, and other open-source software and resources to bridge the gap between classroom learning and the real world.
- This program will include various enrichment and social activities, such as a visit to a local IBM branch, seminars by guest speakers, and trips to nearby attractions. A certificate is issued upon completion of the program.

This program is open to undergraduate students, graduate students, and professionals. Basic knowledge of college-level mathematics and/or statistics is required. Basic knowledge of Linux operating systems, programming language, and database concepts is preferred.

Group Discount

For a group of 5 or more students enrolled in the program, the cost of is reduced to \$3,800 per person.

Topics include:

- Introduction to Big Data, Big Data technologies, and Data Science
- Hadoop, an open-source framework supporting data-intensive distributed applications
- MapReduce, a programming model for big data processing
- Apache Spark, a fast and general engine for large-scale data processing
- Mining Big Data with Spark MLlib, scalable machine learning libraries
- Exploratory data analysis, recommender systems, clustering and summarization, predictive analytics
- Classification with deep learning

PLEASE CONTACT OUR OFFICE FOR FURTHER INFORMATION

Dr. Yi Shang, Department of Electrical Engineering and Computer Science 201 Naka Hall, University of Missouri, Columbia, MO 65211 Phone (573) 884-7794; Fax (573) 882-8318; http://engineering.missouri.edu/cs/

The website for this program can be found at:

http://engineering.missouri.edu/cs/about/big-data-analytics-summer-experience/

PROGRAM COSTS:

OPTION 1:

(This option includes the cost of the program/lab fees, administrative fees, housing in a campus residential hall, meals, transportation to/from Columbia airport, local trips, and social activities.)

= \$3,950 per student

OPTION 2:

(This option includes the cost of the program/lab fees, administrative fees, local trips, and social activities. For this option, the student would be responsible for their own transportation, housing, and meals.)

= \$2,900 per student

**Please note that neither of these options includes the cost of airfare.