This learning experience will be instructed by Professor Yi Shang of the MU Computer Science Department.

Dr. Shang is a Professor and Director of Graduate Studies in the CS department. He has published more than 150 refereed papers in international journals and conferences in the fields of artificial intelligence, mobile and distributed computing, bioinformatics, and wireless sensor networks, and has 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.

This program is open to undergraduate students, graduate students and professionals.

The program for this website can be found at:

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

Please visit the following website to register prior to April 4, 2014:

http://engineering.missouri.edu/summer-program-registration-form/

PLEASE CONTACT OUR OFFICE FOR FURTHER INFORMATION
Jessica Trimble
Student Services Coordinator
University of Missouri
College of Engineering
W1025 Thomas & Nell Lafferre Hall
Columbia, MO 65211

(573) 882-2982 phone
(573) 882-2490 fax
www.engineering.missouri.edu

College of Engineering

MU Computer Science Big Data Analytics Summer Experience 2014

July 7 – July 25, 2014

- **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 IBM Academic Skills Cloud funded by the IBM Academic Initiative 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.**

MU CS Big Data Analytics Summer Experience 2014
Course Prerequisites:
Basic knowledge of Linux operating systems, Java, database concepts and SQL
Students majoring in Computer Science, Computer Engineering, Information Systems, Statistics, Math, and related areas are encouraged to apply.

Topics include:
- Introduction to Big Data, Big Data platforms, and IBM BigInsights
- Hadoop, an open-source software framework supporting data-intensive distributed applications
- MapReduce, a programming model for big data processing
- Abstracting MapReduce jobs with Pig Latin, a high-level platform for creating MapReduce programs
- Querying Big Data with Hive, a data warehousing tool on Hadoop
- Accessing with HBASE, a non-relational, distributed, scalable big data store on Hadoop
- Mining Big Data with Mahout, scalable machine learning libraries

PROGRAM COSTS:

OPTION 1:
(This option includes the cost of the program/lab fees, and administrative fees, as well as housing in a campus residential hall, meals, student health insurance, transportation to/from airport and paid social activities.)

= $3,200 per student

OPTION 2:
(This option includes the cost of the program/lab fees, and administrative fees. For this option, the student would be responsible for their own transportation, housing, meals and social activities.)

= $2000 per student

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