



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

Shang is a professor and director of graduate Studies in the CS Department. He has published more than 160 refereed papers in international journals and conferences in the fields of artificial intelligence, mobile and distributed computing, bioinformatics and wireless sensor networks. He holds six 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, Calif. He has received research funding from the National Science Foundation, National Institutes of Health, the U.S. Army, DARPA, Microsoft and Raytheon.

Shang received his bachelor's degree from the University of Science and Technology of China, master's degree from the Chinese Academy of Sciences and doctorate from University of Illinois at Urbana-Champaign in 1997. He is a lifetime member of the Association for Computing Machinery and a senior member of the Institute of Electrical and Electronics Engineers.

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/about/big-data-analytics-summer-experience/>

Please visit the following website to register prior to April 10, 2015:

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

**PLEASE CONTACT OUR OFFICE
FOR FURTHER INFORMATION**

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**College of
Engineering**

**MU Computer Science
Big Data Analytics
Summer Experience 2015**

July 6 – July 24, 2015



- **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 Elastic MapReduce Web services, IBM Academic Initiative support 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, including 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.***

MU CS Big Data Analytics Summer Experience 2015

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.)

= \$3,850 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 his or her own transportation, housing, meals and social activities.)

= \$2,700 per student

**A \$200 deposit is required for each application. This deposit is non-refundable if accepted into the program.*

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