Big Data Analytics
Certificate of Advanced Study

Big Data Analytics is a 15-credit certificate program designed to meet the needs of professionals with a Bachelor of Science or a Master of Science degree in Information Science or a related field in order to quickly learn to understand the systems underpinning Big Data .

CORE COURSES

Students may select three of the four core courses to fulfill the core requirements of the certificate:

INFSCI 2160 Data Mining available **evenings** Spring 2015	INFSCI 2591 Algorithm Design available Spring 2015
INFSCI 2711 Advanced Topics in Database Management available Spring 2015	INFSCI 2725 Data Analytics

ELECTIVES

In addition to the three core courses, students must complete two elective courses. Examples of these courses include but are not limited to:

INFSCI 2130 Decision Analysis & Decision Support Systems

INFSCI 2140 Information Storage & Retrieval

INFSCI 2410 Introduction to Neural Networks

INFSCI 2430 Social Computing

TELCOM 2125 Network Science & Analysis: Networks, Crowds & Interconnected Worlds

INFSCI 2801 Geospatial Information Systems (GIS)

INFSCI 2802 Mobile GIS and Location-Based Services

INFSCI 2809 Advanced Geospatial Information Systems

LIS 2690 Information Visualization

ADMISSIONS REQUIREMENTS

Prerequisites

▸ Successful completion of at least one 3-credit college course with a grade of B or better in each of the following:

- Structured programming language
- Statistics
- Mathematics

▸ BS/BE degree (post-baccalaureate CAS) **OR** MS degree (post-Master's CAS) from an accredited college or university with a 3.0 or better in a related field (e.g., computer science, information technology, telecommunications, computer or electrical engineering, etc.)
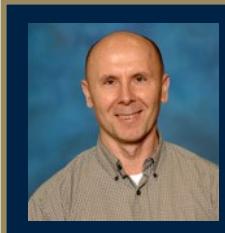
APPLY TODAY

Application Checklist
- ☐ Official transcript
- ☐ Two letters of recommendation
- ☐ Personal statement
- ☐ Resume

Questions?

Contact **Shabana Reza** (sreza@sis.pitt.edu / 412-624-3988) or visit:

www.ischool.pitt.edu/ist/cas-bda/

BIG DATA ANALYTICS LEAD FACULTY

Marek Druzdzel is an associate professor in the Information Science and Technology program. He leads the Decision Systems Laboratory and his research interests include decision support systems, strategic planning, decision making under uncertainty, decision-theoretic methods in intelligent information systems.

Hassan Karimi is a professor in the Information Science and Technology program. He leads the Geoinformatics Laboratory and his research interests include mobile computing, navigation, location-based services, geoinformatics, location-aware social networking, geospatial information systems, computational geometry, grid/distributed/parallel computing, and spatial databases.

Vladimir Zadorozhny is an associate professor in the Information Science and Technology program. His research interests include networked information systems, complex adaptive systems, heterogeneous data fusion, wireless and sensor data management, query optimization in distributed environments, scalable architectures for wide-area environments with heterogeneous information servers. He is a Fulbright Scholar for 2014-2015.

BIG DATA AND THE INFORMATION SCIENCES AT PITT

The University of Pittsburgh's School of Information Sciences (iSchool) has trained leaders in the information professions for more than 100 years. The iSchool continues to be at the forefront of emerging trends in the field and students in the Big Data Analytics certificate program will quickly learn to understand the systems underpinning Big Data under the guidance of faculty experts with years of experience solving problems related to data size, data rate, and data diversity.

Faculty members at the iSchool at Pitt examine Big Data from a number of perspectives from projects that mine Twitter data to understand crowd behavior during emergencies (Yu-Ru Lin) to collaborative initiatives that leverage multiple sources of historical data to form an advanced infrastructure for scholarly research (Vladimir Zadorozhny).

Management of Big Data is quickly becoming a key concern for a wide range of sectors including healthcare, finance, pharmaceuticals, retail, location-based technologies and services and many more. The iSchool at Pitt offers access to a diverse array of experts who will bring students quickly up to speed on the most current technologies and strategies to harness the power of Big Data.

UNIVERSITY OF PITTSBURGH | SCHOOL OF INFORMATION SCIENCES

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