IBA Institute of
Business Administration
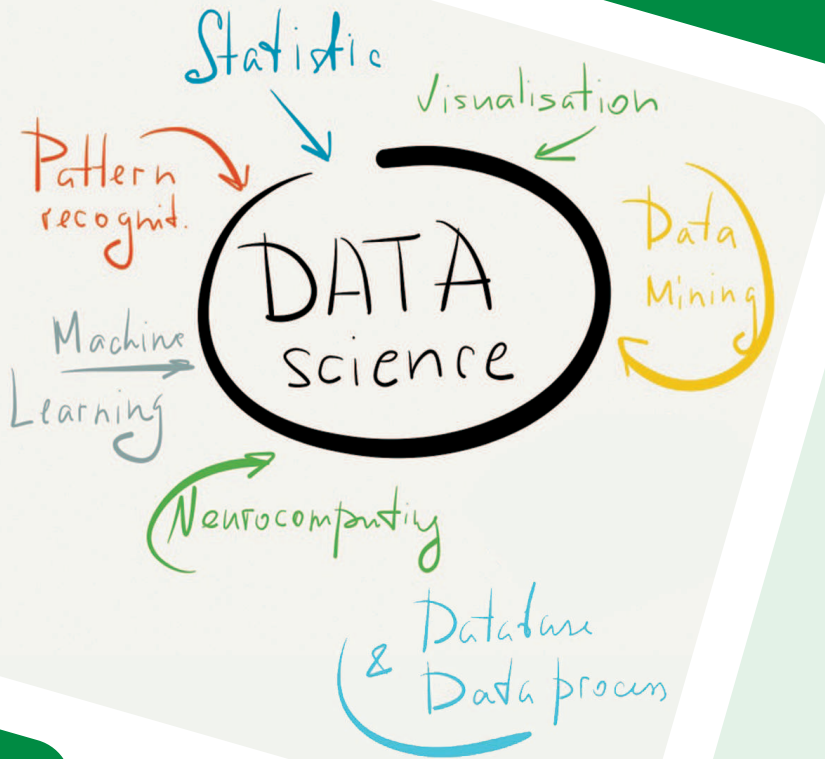Karachi
Leadership and Ideas for Tomorrow

Workshop on
Introduction to Data Science

May 14 to 17, 2015

9:00am – 5:00pm
Venue: CEE@IBA, Karachi

OVERVIEW

Data Scientist has been called the "Sexiest Job of the 21st Century" by Harvard Business Review. At the same time, it is estimated that there is a worldwide shortage of people possessing data science skills as reported by McKinsey Global Institute. In lieu of this emerging need, this workshop aims to provide theoretical foundations, algorithms, and methods of deriving valuable insights from data. It covers all parts of analytics lifecycle from business problem and data understanding to model building and evaluation. Participants are equipped with practical experience of dealing with massive data sets using state-of-the-art analytics software (R and KNIME). Both predictive and descriptive modeling techniques are covered in the course. The range of topics includes classification trees, naïve Bayes, K-means clustering, association rule mining, regression analysis, and text analytics and their applications in a variety of fields. The participants also learn the art of data wrangling as they gather, transform, and clean both structured and unstructured data from disparate sources while building a toolkit of analytical techniques. Participants are given insight into the thought processes underlying data analytics models; what do they mean and how they are constructed and evaluated.

LEARNING OUTCOMES

After successfully completing this workshop,
participants are expected to:

- understand the popular analytical methods
  (classification, clustering, text analytics, market-basket analysis, etc.)
  and their applications in a variety of areas.
- understand the key concepts relevant to data science, including data cleaning, integration,
  and visualization of both structured and unstructured data
- understand how data science fits into their business context
- get hands-on experience of KNIME and R

Testimonials

"Course was well designed and looking forward to similar courses in future. IBA-CEE was strictly professional in its dealings and well suited for corporate trainings. Keep it up."

Mr. Hassan Malik
Risk analyst, Allied Bank Limited

"The material, instructor, in fact everything was great. Would like to attend another course here in the near future."

Mr. Tariq Mahmood,
Credit Risk Analyst, Allied Bank Limited

"Excellent trainer and a great overall experience. A definite value addition to my knowledge and skill set."

Mr. Irtiza Kaleem,
Risk Analyst, Allied Bank Limited

IBA CEE Center for Executive Education
Institute of Business Administration

INTENDED AUDIENCE

The workshop is primarily designed for database administrators, software engineers, IT Analysts, statisticians, economists, business analysts, risk modelers, data analysts, engineers and people with quantitative background who deal with massive data sets on daily basis and would like to learn data science techniques to get new insight about their organization data. Few of the examples include people working in:

- Financial/Banking sector and want to learn predictive techniques that help them in detecting fraud and loan-default.
- Telecom sector and want to build churn models to detect customers who are likely to join other competitors.
- Insurance/Health Sector and want to build predictive models to detect fraudulent claims.
- Marketing/Retail sector and would like to know which of their customers would be interested in a new or a discounted product and/or which items are purchased together.
- Social media firms and/or customer relationship department interested in analyzing text data such as twitter trends or product reviews.

FACULTY

Dr. Sajjad Haider is an Associate Professor of Computer Science at Institute of Business Administration Karachi (IBA) and also heads the Artificial Intelligence Lab. He also holds a dual position of Honorary Associate in the Faculty of Engineering and Information Technology, University of Technology, Sydney (UTS). Dr. Haider did his MS and PhD from George Mason University (USA) in the field of Decision Sciences. He is also a certified Data Scientist from EMC. After finishing his PhD, he worked for Fannie Mae (USA) where he led the data analytics efforts to develop credit scoring and fraud detection models on large data sets having tens of millions of observations. At the University of Technology, Sydney, he has been involved in the design and development of executive level analytics curriculum for one of the leading banks in Australia. He has also won a National ICT R&D Fund's grant to develop anti-money laundering system using data analytics techniques. He has authored more than four dozen research papers published in international journals and conference proceedings. He has been teaching Business Analytics, Data Mining, Neuro Computing Analytics and other related courses at IBA for the past many years. Dr. Haider is a recipient of Best Teacher Award from Higher Education Commission (Pakistan), Endeavour Fellowship from Australian Govt., Best Paper Award from International Council on Systems Engineering (USA) and Best Student Paper Award from Command and Control Research and Program (USA). He also received the best student award in MS (George Mason University), gold medal in MCS (Karachi University) and gold medal in B.Sc.(H) (Karachi University).

Workshop Fees
PKR 50,000/participant
Inclusive of Course material, IBA Workshop Certificate,
Lunch, Refreshments & Business networking

Experience
EXECUTIVE
EDUCATION
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