

# BIG DATA

# DATA SCIENCE

# FOUNDATION

# COURSE

iKOMPASS  
COURSE

# BIG DATA FOUNDATION

## FEATURES



**3 Days classroom**



**Certification (optional)**



**Based on best practices**



**Essential Knowledge**



## EXAM

**A**

### Paper based

You will take the exam after class

**B**

### 40 Questions

You will have 50 minutes to complete the exam

**C**

### Certification

Cloud Credential Council

**D**

### Type of Questions

Multiple choice and closed book



## TYPICAL DAY

AM  
**9-10**

### Concept explanation

Our trainers will explain the concept and show you the steps

AM  
**10-12**

### Learn by Doing

You will complete the steps that the trainer showed you

PM  
**1-3**

### Challenge of the Day

Each day you will work on a case study

PM  
**3-5**

### Demo & Retrospective

We will randomly choose one group's work to review

## REGISTRATION

**EMAIL** [contact@ikompass.edu.sg](mailto:contact@ikompass.edu.sg)

**CALL** +65 66381203

**ENROLL** [www.ikompass.edu.sg](http://www.ikompass.edu.sg)

DATA SCIENCE WORKSHOP

# WHAT IS COVERED

## CHARACTERISTICS

HISTORY  
OVERVIEW  
CHARACTERISTICS  
CURRENT BEST PRACTICES  
CHALLENGES

## BIG DATA TECHNOLOGIES

FOUNDATIONAL KNOWLEDGE ON HADOOP, MONGODB AND OTHER BIG DATA RELATED TECHNOLOGIES. WE COVER CASE STUDIES IN THE SOCIAL MEDIA AND RETAIL SECTOR. YOU WILL ALSO LEARN ABOUT THE HDFS INFRASTRUCTURE.

## DATA SOURCES

ENTERPRISE SYSTEMS  
DATA WAREHOUSES  
UNSTRUCTURED DATA

## PANDAS

PANDAS IS AN OPEN SOURCE, BSD-LICENSED LIBRARY PROVIDING HIGH-PERFORMANCE, EASY-TO-USE DATA STRUCTURES AND DATA ANALYSIS TOOLS FOR THE PYTHON PROGRAMMING LANGUAGE.

## SECOND ORDER

THERE ARE TWO MAIN CLASSES OF MACHINE LEARNING ALGORITHMS: 1. SUPERVISED AND 2. UNSUPERVISED LEARNING. EXACTLY WHAT DOES LEARNING ENTAIL? AT ITS MOST BASIC, LEARNING INVOLVES SPECIFYING A MODEL STRUCTURE THAT HOPEFULLY CAN EXTRACT REGULARITIES FOR THE DATA OR PROBLEM AT HAND.

## ANALYTICS

THIS CHAPTER DISCUSSES HOW WE CAN PROCESS A DATASET AND UNDERSTAND ITS BASIC CHARACTERISTICS. WE WILL COVER MORE COMPLEX METHODS LIKE DATA MINING, CLASSIFICATION, AND SO ON

## ALGORITHMS

FRAMEWORKS ARE WELL SUITED FOR LARGE-SCALE SEARCH AND INDEXING APPLICATIONS. IN FACT, GOOGLE CAME UP WITH THE ORIGINAL MAPREDUCE FRAMEWORK SPECIFICALLY TO FACILITATE THE VARIOUS OPERATIONS INVOLVED WITH WEB SEARCHING.

## CLOUD DEPLOYMENT

COMPUTING CLOUDS PROVIDE ON-DEMAND, HORIZONTAL, SCALABLE COMPUTING RESOURCES WITH NO UPFRONT CAPITAL INVESTMENT, MAKING THEM AN IDEAL ENVIRONMENT TO PERFORM OCCASIONAL LARGE -SCALE HADOOP COMPUTATIONS.

## OTHER STUFF.....

CLOUD COMPUTING IN TERMS OF:  
BIG DATA,  
NoSQL,  
SOCIAL MEDIA  
MACHINE LEARNING

# CASE STUDY

Hypothetical Big Data project use case: Cybersecurity measures within a company in relation to insider threats. The company hosts thousands of applications for various business functions. The context will be User Behavior Analytics. Signals include, login meta data for each application, location data, network data, employee data, performance appraisal data, travel data, deaktop activity data. The analytics is focused on determining a risk score based for each user. One can think of Big Data as the raw data available in sufficient volume, variety and velocity. Volumes here refers to terabytes of data. Variety refers to the different dimensions of data. Velocity refers to the rate of change.

A bank can use credit card information to develop models that's more predictive about future credit behavior. This provides better financial access. What you purchased, frequency of purchase, how often do you pay back, where do you spend money are better predictors of payment credibility than a simple one dimensional credit score.

Big Data and analytics is made possible due to the digital breadcrumbs we leave. Digital breadcrumbs include things like location data, browsing habits, information from health apps, credit card transactions etc.,

The data lets us create mathematical models of how people interact, what motivates us, what influences our decision making process and how we learn from each other.

## EXPERT TRAINERS



ROSHAN

Roshan is a Data Scientist and has over 14 years experience in building models and big data. He has worked with fortune 500 companies running large scale software projects in various roles including that of project manager, solution architect, sponsor and development lead. Roshan has been developing cloud applications for his enterprise clients in the area of finance and payment systems. His main strengths lies leveraging insights obtained from analyzing massive amounts of data.



SANAT

Sanat has extensive expertise in Cloud computing and Virtualization technologies. He brings to the table hands-on knowledge in Virtual Desktop Infrastructure (VDI) – private cloud. His technical proficiencies cover Private/Public Cloud technologies- Amazon EC2, Windows Azure, Eucalyptus, OpenStack. Sanat is a Certified Trainer for Cloud and Virtualization Essentials courses from Cloud Credential Council.



DATA SCIENCE BIG DATA FOUNDATION	Singaporean					Singapore PR	Local Student
	SELF SPONSORED Above 40	SELF SPONSORED Less than 40	COMPANY SPONSORED (MNC) Above 40	COMPANY SPONSORED (MNC) Less than 40	COMPANY SPONSORED (SME) Less than & Above 40	COMPANY SPONSORED OR SELF SPONSORED or less than 40 or above 40	
COURSE FEES S\$	2590	2590	2590	2590	2590	2590	2000
EXAM FEES S\$	227	227	227	227	227	227	227
GST S\$	197.19	197.19	197.19	197.19	197.19	197.19	155.89
FUNDING	90%	70%	90%	70%	90%	70%	100%
CITREP CLAIM S\$	2535.3	1971.9	2535.3	1971.9	2535.3	1971.9	2227
<b>FEES AFTER FUNDING</b>	<b>478.89</b>	<b>1042.29</b>	<b>478.89</b>	<b>1042.29</b>	<b>478.89</b>	<b>1042.29</b>	<b>155.89</b>

Participant needs to make full payment to the training provider. Funding will be reimbursed by the relevant government agency after course completion.

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