

Data Scientist

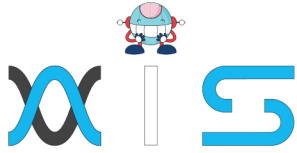
Master's Program



In Collaboration with IBM

Masterclasses, Exclusive Mentoring Sessions
and Hackathons by IBM

www.aiservices.com.ph



About the Program

This Data Scientist Master's Program in collaboration with IBM accelerates your career in Data Science providing you with world class training and skills required to become successful in this domain. The program offers extensive training on the most in-demand Data Science and Machine Learning skills with hands-on exposure to key tools and technologies including R, Python, Tableau, Hadoop, Spark, and Deep Learning. Become an expert in Data Science by deep diving into the nuances of data interpretation, interworking technologies like Machine Learning, and mastering powerful programming skills to take your career in Data Science to the next level.

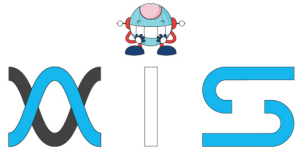
Key Features

The global software engineering market is expected to grow to approximately USD \$37.4 billion by 2022, at a CAGR of 11.72 percent. Corporate initiatives focused on digital transformation will help drive tremendous demand for skilled software developers, which is reflected in current and future hiring trends. According to NASSCOM and USA Today, one million software development jobs will be added to the workforce by 2020 in India and 1.4 million jobs in the USA.

Many companies prefer to hire multi-skilled technology professionals like Automation Test Engineers. The average annual salary for an Automation Test Engineer is USD \$94,270 (ZipRecruiter).

Some additional interesting aspects of the software development industry:

- Industry-recognized certificates from IBM (for IBM courses) and Simplilearn
- Portfolio worthy capstone demonstrating mastered concepts
- 15+ Real-life projects providing hands-on industry training
- 30+ In-demand skills
- Lifetime access to self-paced learning and class recordings
- Masterclasses, Exclusive Mentoring Sessions and Hackathons by IBM



Learning Path



1

Data Science with Python
(72 hours)

2

Machine Learning
(72 hours)

3

Deep Learning with Keras and Tensor Flow

4

Tableau Training
(54.3 hours)

5

Data Science Capstone
(8 hours)

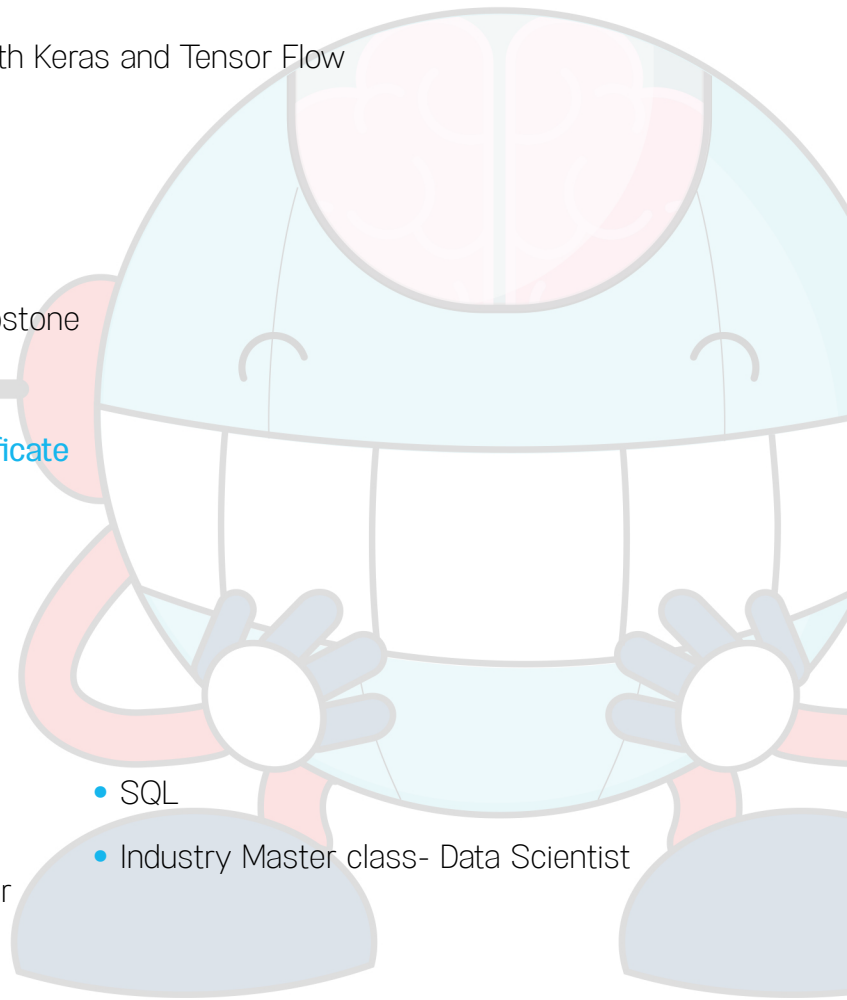
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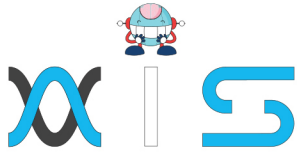
Completion Certificate

Electives

- Data Science Certification Training - R Programming
- Big Data Hadoop and Spark Developer
- Python for Data Science

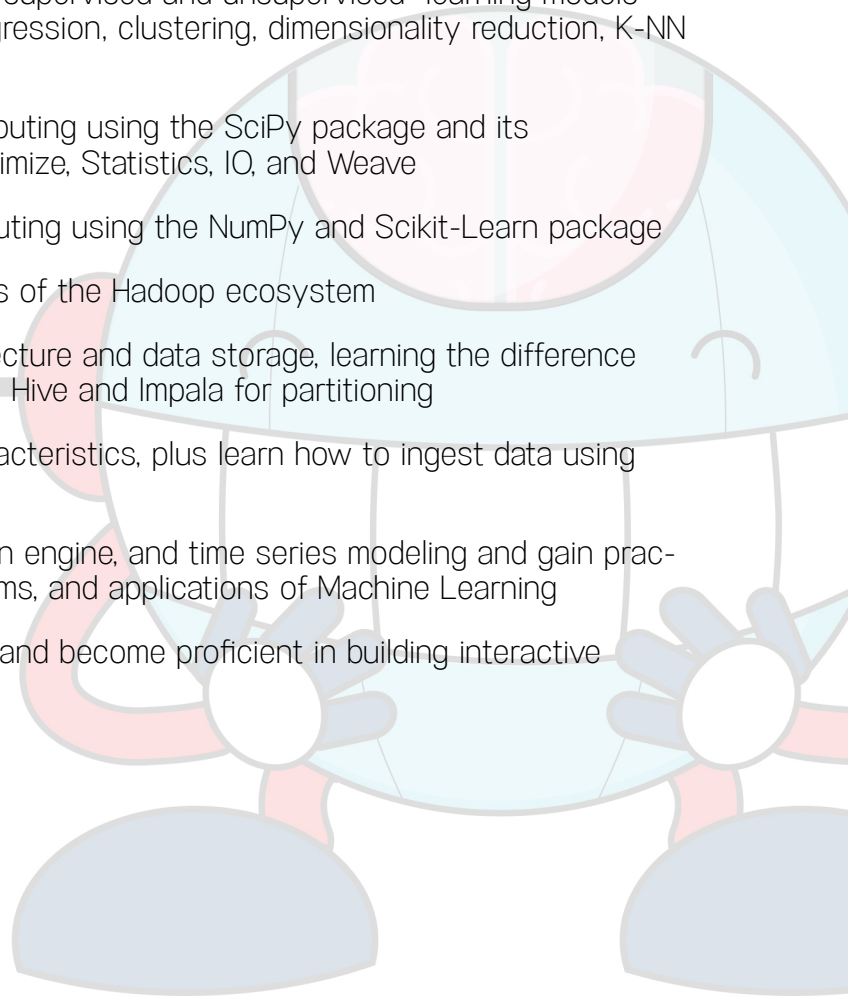
- SQL
- Industry Master class- Data Scientist

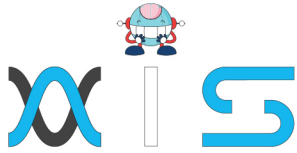




Data Scientist Master's Program Outcomes

- Gain an in-depth understanding of data structure and data manipulation
- Understand and use linear and non-linear regression models and classification techniques for data analysis
- Obtain an in-depth understanding of supervised and unsupervised learning models such as linear regression, logistic regression, clustering, dimensionality reduction, K-NN and pipeline
- Perform scientific and technical computing using the SciPy package and its sub-packages such as Integrate, Optimize, Statistics, IO, and Weave
- Gain expertise in mathematical computing using the NumPy and Scikit-Learn package
- Understand the different components of the Hadoop ecosystem
- Learn to work with HBase, its architecture and data storage, learning the difference between HBase and RDBMS, and use Hive and Impala for partitioning
- Understand MapReduce and its characteristics, plus learn how to ingest data using Sqoop and Flume
- Master the concepts recommendation engine, and time series modeling and gain practical mastery over principles, algorithms, and applications of Machine Learning
- Learn to analyze data using Tableau and become proficient in building interactive dashboards

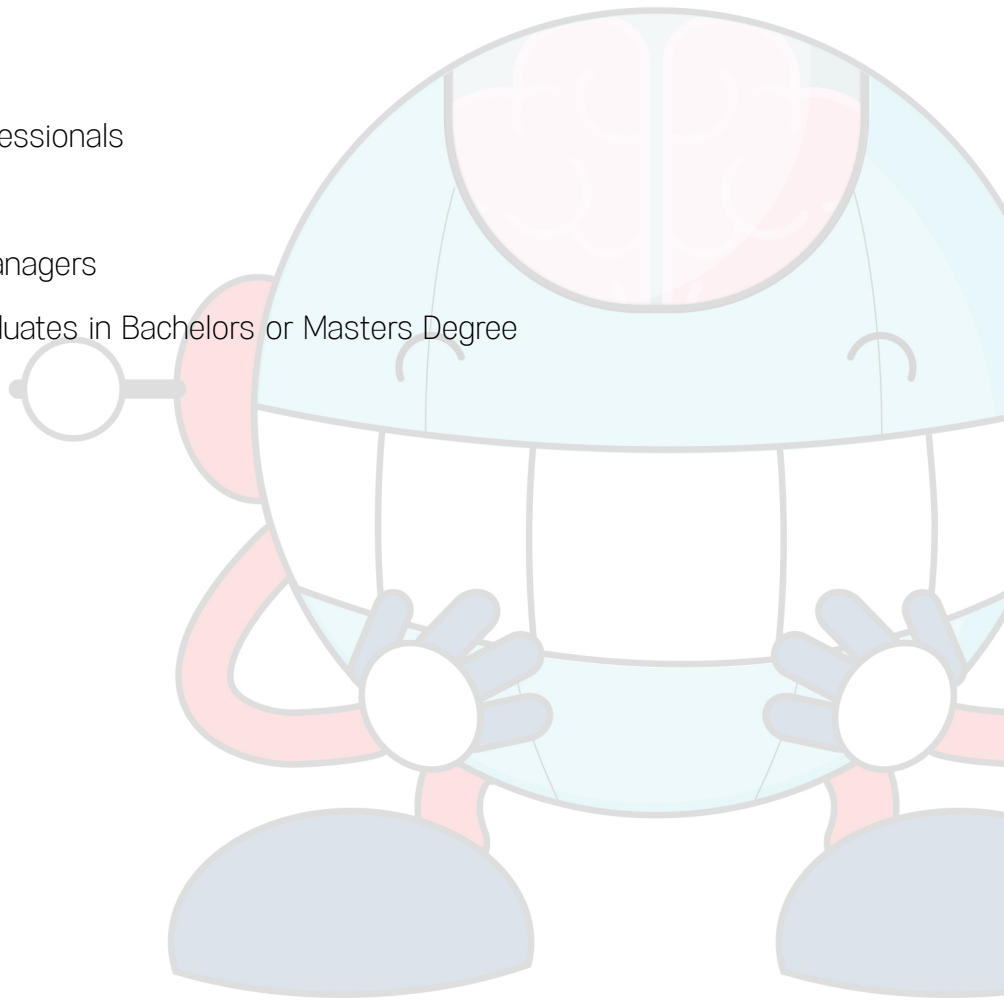


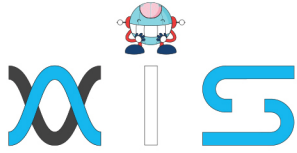


Who Should Enroll in this Program?

The Data Science role requires an amalgam of experience, Data Science knowledge, and using the correct tools and technologies. It is a solid career choice for both new and experienced professionals. Aspiring professionals of any educational background with an analytical frame of mind are most suited to pursue the Data Scientist Master's Program, including:

- IT Professionals
- Analytics Managers
- Business Analysts
- Banking and Finance Professionals
- Marketing Managers
- Supply Chain Network Managers
- Beginners or Recent Graduates in Bachelors or Masters Degree





STEP

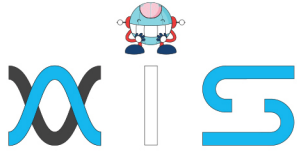


Data Science with Python

This Data Science with Python course will establish your mastery of Data Science and analytics techniques using Python. With this Python for Data Science Course, you'll learn the essential concepts of Python programming and gain in-depth knowledge in data analytics, Machine Learning, data visualization, web scraping, and natural language processing. Python is a required skill for many Data Science positions, so jump start your career with this interactive, hands-on course.

Key Learning Objectives

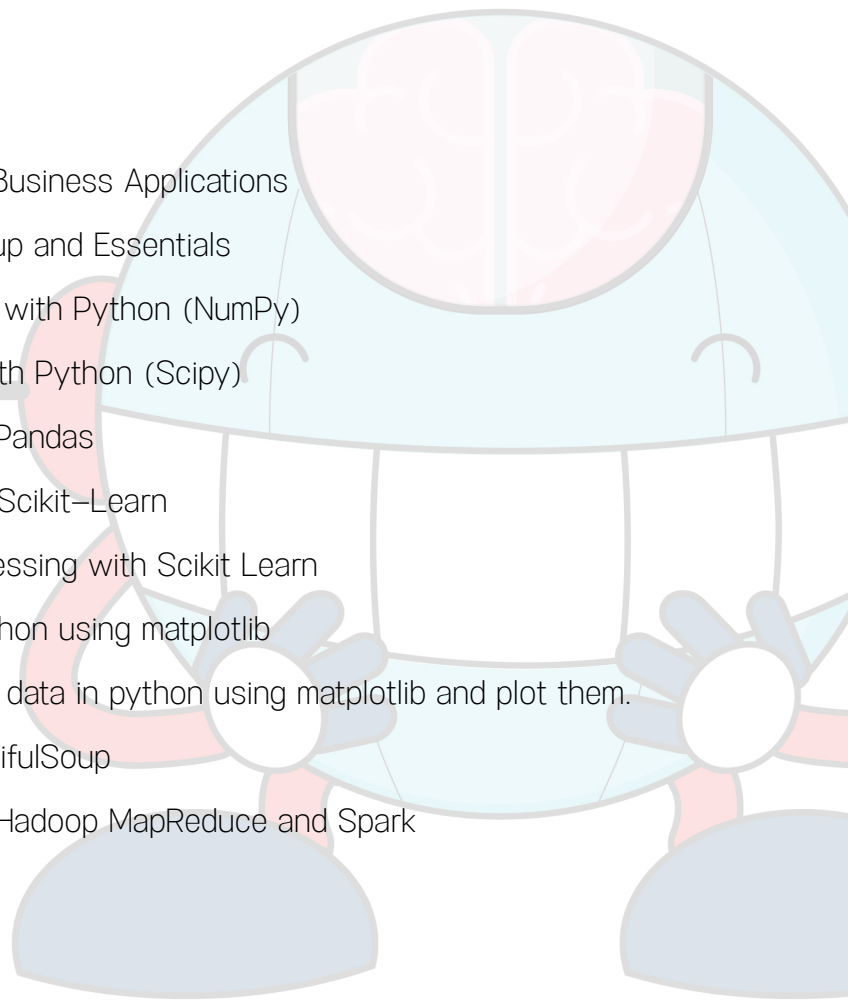
- Gain an in-depth understanding of Data Science processes, data wrangling, data exploration, data visualization, hypothesis building, and testing. You will also learn the basics of statistics
- Install the required Python environment and other auxiliary tools and libraries
- Understand the essential concepts of Python programming such as data types, tuples, lists, dicts, basic operators and functions. Perform high-level mathematical computing using the NumPy package and its vast library of mathematical functions
- Perform scientific and technical computing using the SciPy package and its sub-packages such as Integrate, Optimize, Statistics, IO, and Weave
- Perform data analysis and manipulation using data structures and tools provided in the Pandas package
- Gain expertise in Machine Learning using the Scikit-Learn package
- Gain an in-depth understanding of supervised learning and unsupervised learning models such as linear regression, logistic regression, clustering, dimensionality reduction, K-NN and pipeline

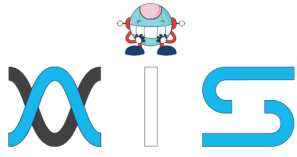


- Use the Scikit-Learn package for natural language processing
- Use the matplotlib library of Python for data visualization
- Extract useful data from websites by performing web scraping using Python
- Integrate Python with Hadoop, Spark, and MapReduce

Course curriculum

- Lesson 01 - Data Science Overview
- Lesson 02: Data Analytics Overview
- Lesson 03: Statistical Analysis and Business Applications
- Lesson 04: Python Environment Setup and Essentials
- Lesson 05: Mathematical Computing with Python (NumPy)
- Lesson 06 - Scientific computing with Python (Scipy)
- Lesson 07 - Data Manipulation with Pandas
- Lesson 08 - Machine Learning with Scikit-Learn
- Lesson 09 - Natural Language Processing with Scikit Learn
- Lesson 10 - Data Visualization in Python using matplotlib
- This lesson teaches you to visualize data in python using matplotlib and plot them.
- Lesson 11 - Web Scraping with BeautifulSoup
- Lesson 12 - Python integration with Hadoop MapReduce and Spark





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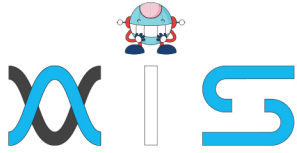


Machine Learning

Simplilearn's Machine Learning course will make you an expert in Machine Learning, a form of Artificial Intelligence that automates data analysis to enable computers to learn and adapt through experience to do specific tasks without explicit programming. You will master Machine Learning concepts and techniques, including supervised and unsupervised learning, mathematical and heuristic aspects, and hands-on modeling to develop algorithms and prepare you for your role with advanced Machine Learning knowledge.

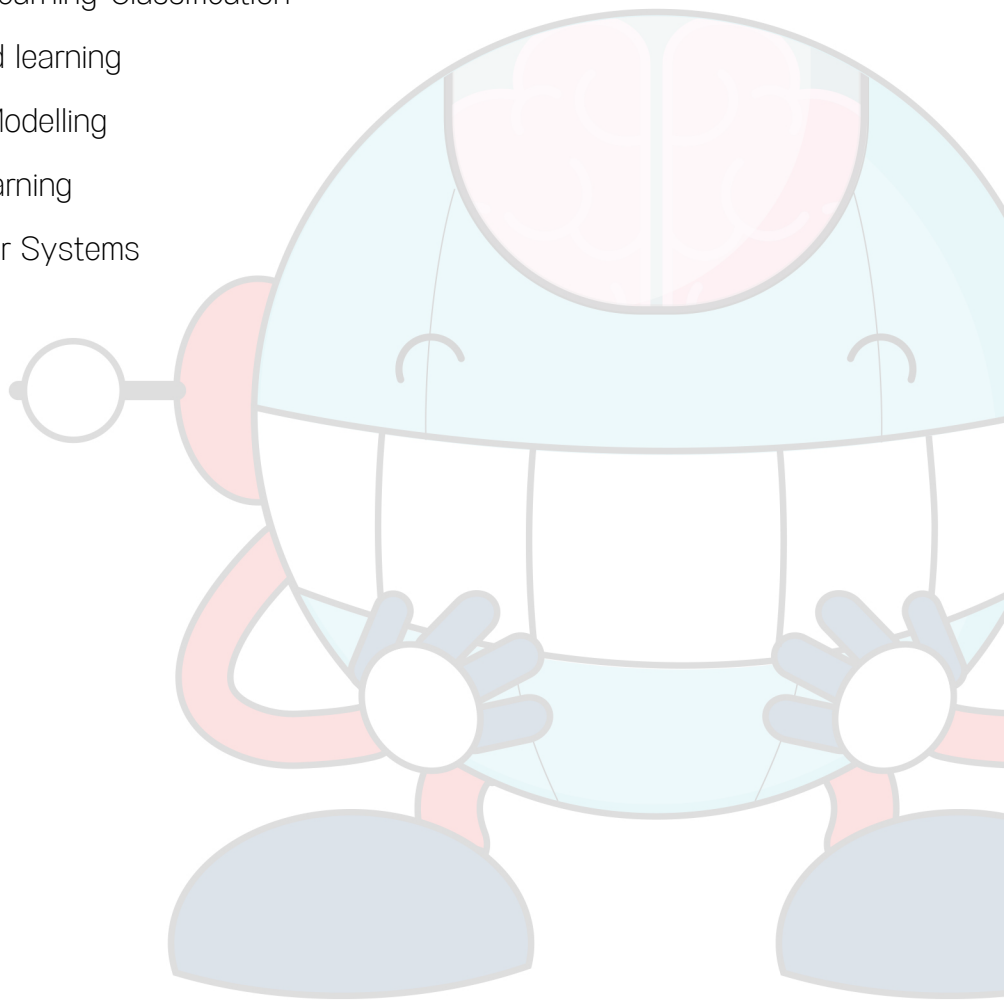
Key Learning Objectives

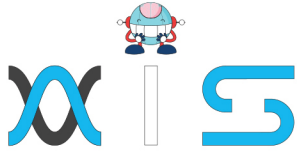
- Master the concepts of supervised and unsupervised learning, recommendation engine, and time series modeling
- Gain practical mastery over principles, algorithms, and applications of Machine Learning through a hands-on approach that includes working on four major end-to-end projects and 25+ hands-on exercises
- Acquire thorough knowledge of the statistical and heuristic aspects of Machine Learning
- Implement models such as support vector machines, kernel SVM, naive Bayes, decision tree classifier, random forest classifier, logistic regression, K-means clustering and more in Python
- Validate Machine Learning models and decode various accuracy metrics. Improve the final models using another set of optimization algorithms, which include Boosting & Bagging techniques
- Comprehend the theoretical concepts and how they relate to the practical aspects of Machine Learning



Course curriculum

- Lesson 01 - Introduction to Artificial Intelligence and Machine Learning
- Lesson 02: Data Wrangling and Manipulation
- Lesson 03: Supervised Learning
- Lesson 04: Feature Engineering
- Lesson 05: Supervised Learning-Classification
- Lesson 06: Unsupervised learning
- Lesson 07: Time Series Modelling
- Lesson 08: Ensemble Learning
- Lesson 09: Recommender Systems
- Lesson 10: Text Mining





STEP



Deep Learning with Keras and Tensor Flow

This Deep Learning with TensorFlow course by IBM will refine your machine learning knowledge and make you an expert in deep learning using TensorFlow. Master the concepts of deep learning and TensorFlow to build artificial neural networks and traverse layers of data abstraction. This course will help you learn to unlock the power of data and prepare you for new horizons in AI.

Key Learning Objectives

The Data Science role requires an amalgam of experience, Data Science knowledge, and using the correct tools and technologies. It is a solid career choice for both new and experienced professionals. Aspiring professionals of any educational background with an analytical frame of mind are most suited to pursue the Data Scientist Master's Program, including:

- Understand the difference between linear and non-linear regression
- Comprehend convolutional neural networks and their applications
- Gain familiarity with recurrent neural networks (RNN) and autoencoders
- Learn how to filter with a restricted Boltzmann machine (RBM)

Course curriculum

- Lesson 1 - Introduction to TensorFlow
- Lesson 2 – Convolutional Neural Networks (CNN)

- Lesson 3 – Recurrent Neural Networks (RNN)
- Lesson 4 - Unsupervised Learning
- Lesson 5 - Autoencoders

STEP

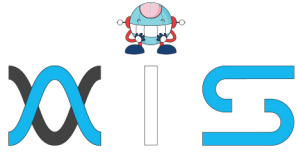


Tableau

This Tableau course helps you understand how to build visualizations, organize data, and design charts and dashboards to empower more meaningful business decisions. You'll be exposed to the concepts of Data Visualization, different combo charts, and stories, working with filters, parameters, and sets, and building interactive dashboards.

Key Learning Objectives

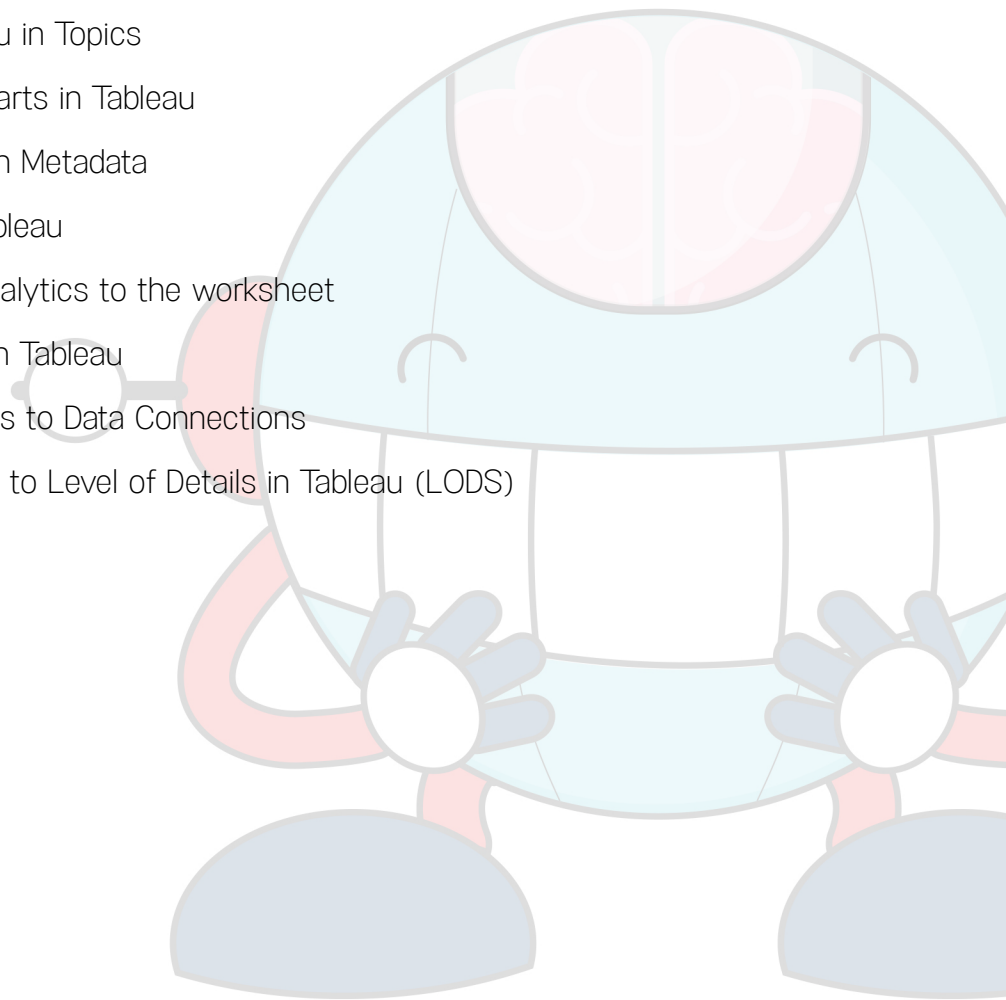
- Become an expert on visualization techniques such as heat map, treemap, waterfall, Pareto
- Understand metadata and its usage
- Work with Filter, Parameters, and Sets
- Master special field types and Tableau-generated fields and the process of creating and using parameters
- Learn how to build charts, interactive dashboards, story interfaces, and how to share your work

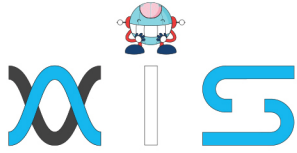


- Master the concepts of data blending, create data extracts and organize and format data
- Master arithmetic, logical, table, and LOD calculations

Course curriculum

- Lesson 01 - Getting Started with Tableau
- Lesson 02 - Core Tableau in Topics
- Lesson 03 - Creating Charts in Tableau
- Lesson 04 - Working with Metadata
- Lesson 05 - Filters in Tableau
- Lesson 06 - Applying Analytics to the worksheet
- Lesson 07 - Dashboard in Tableau
- Lesson 08 - Modifications to Data Connections
- Lesson 09 - Introduction to Level of Details in Tableau (LODS)





STEP



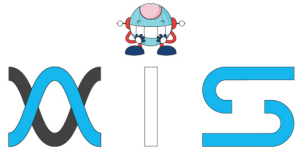
Data Science Capstone

This Data Science Capstone project will give you an opportunity to implement the skills you learned throughout this Program. Through dedicated mentoring sessions, you'll learn how to solve a real-world, industry-aligned Data Science problem, from data processing and model building to reporting your business results and insights. The project is the final step in the learning path and will enable you to showcase your expertise in Data Science to future employers.

Key Learning Objectives

Simplilearn's online Data Science Capstone course will bring you through the Data Science decision cycle, including data processing, building a model and representing results. The project milestones are as follows:

- Data Processing - In this step, you will apply various data processing techniques to make raw data meaningful.
- Model Building - You will leverage techniques such as regression and decision trees to build Machine Learning models that enable accurate and intelligent predictions. You may explore Python, R to build your model. You will follow the complete model-building exercise from data split to test and training and validating data using the k-fold cross validation process.
- Model Fine-tuning - You will apply various techniques to improve the accuracy of your model and select the champion model that provides the best accuracy.
- Dashboarding and Representing Results - As the last step, you will be required to export your results into a dashboard with meaningful insights using Tableau



Elective Course

Data Science Certification Training - R Programming

The next step to a data scientist is learning R - the upcoming and most in-demand open source technology. R is an extremely powerful Data Science and analytics language which has a steep learning curve and a very vibrant community. This is why it is quickly becoming the technology of choice for organizations who are adopting the power of analytics for competitive advantage.

Big Data Hadoop and Spark Developer

Learn how to work Big Data and its components. Deep-dive into Hadoop and its ecosystem including MapReduce, HDFS, Yarn, HBase, Impala, Sqoop and Flume. This course provides an introduction to Apache Spark which is a next step after Hadoop. After completing this course, you will be able to successfully pass the Cloudera CCA175 certification but embrace this technology as part of your role as a Data Scientist.

Python for Data Science

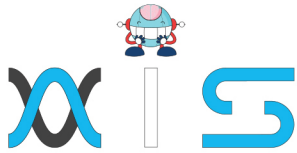
Kickstart your learning of Python for Data Science with this introductory course and familiarize yourself with programming. Carefully crafted by IBM, upon completion of this course you will be able to write your Python scripts, perform fundamental hands-on data analysis using the Jupyterbased lab environment, and create your own Data Science projects using IBM Watson

SQL

This course gives you all the information you need to successfully start working with SQL databases and make use of the database in your applications. Learn to correctly structure your database, author efficient SQL statements, and clauses, and manage your SQL database for scalable growth.

Industry Master Class – Data Science

Attend this online interactive industry master class to gain insights about Data Science advancements and AI techniques.



Classroom-Level Immersion: Delivered Digitally

Anywhere
Anytime
Access

Online
Self-Learning

Live,
Interactive
Classes



Online Enrollment and
Access on Web and Mobile



Chapter-end
quizzes



Chapter-end
quizzes



Live virtual
classroom



Live interaction
and mentoring



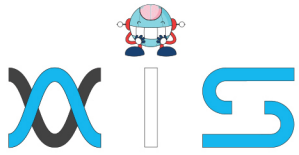
Final Assessment



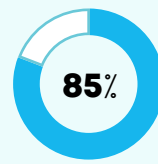
Project Work



Virtual Tabs

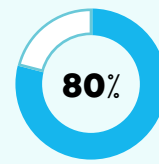


Internal, and External Certification



Course
Completion

+



Score on
Simulation Exam

+



Final Exam & Certification

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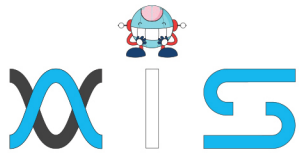
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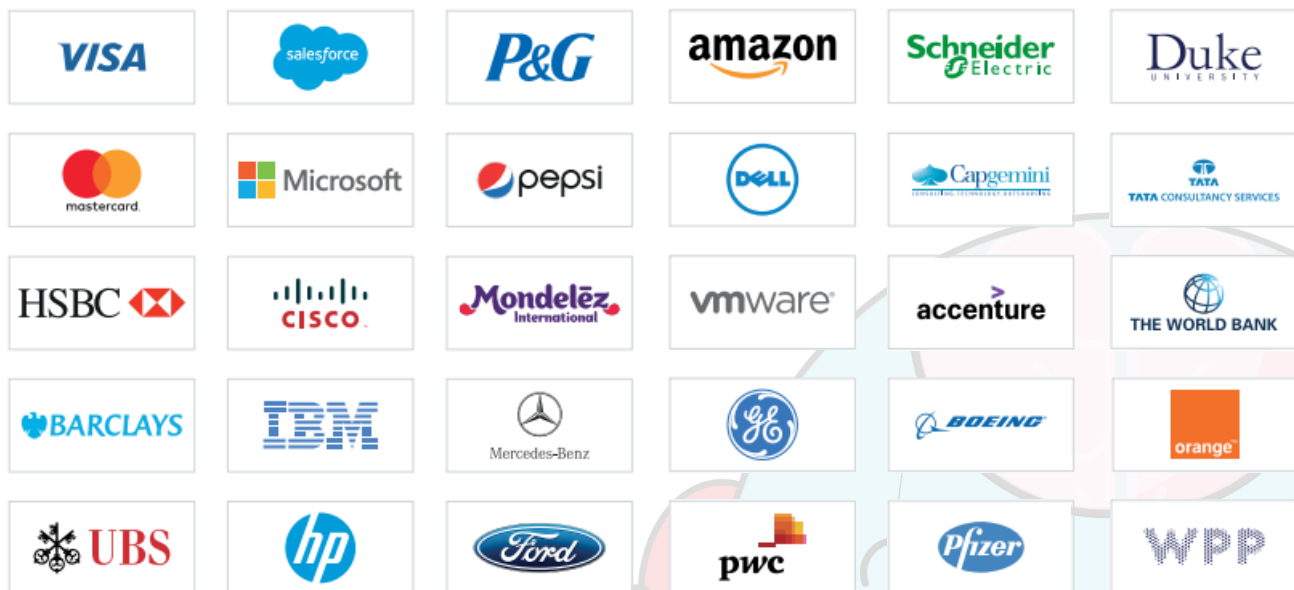
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GLOBAL BEST PRACTICE

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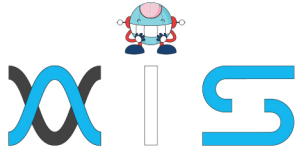
Corporate Training

Top clients we work with:



Features of Corporate Training:

- Tailored learning solutions
- Flexible pricing options
- Enterprise-grade learning management system (LMS)
- Enterprise dashboards for individuals and teams
- 24 x 7 learner assistance and support



AIS

With the rising demand in scalable technology, AIS provides tailored goal-setting based on your organization's needs and expectations. With products geared towards the growing needs of your organization's customers and employees, AIS has innovative and value-driven solutions.

Learning Partners



SAS Management, Inc.

Premiere training and consulting services company, SAS Management, Inc. has been in the industry for a decade. SAS Management, inc. focuses on creating value in every learning and consulting experience by providing the best possible output – whether in a virtual classroom setup, e-learning, or face-to-face. SAS Management, Inc. is the leading training and certification provider for ITIL, Project Management Professional, ISO certifications, PRINCE2, SDI Service Desk Analyst and Manager, Agile, and a host of many programs and courses.



Simplilearn

Tagged as the “World’s #1 Online Bootcamp”, Simplilearn provides online education and in-house training for professional certification courses. Founded in 2010, Simplilearn offers more than 100 programs, helping professionals reach their learning potentials needed to work in the digital economy.

Technology Partner



Freshworks

With over 40,000 customers, Freshworks is a business solutions software provider with products ranging from IT helpdesk and service desk, customer relationship management, live chat, marketing automation, phone system, and HR.

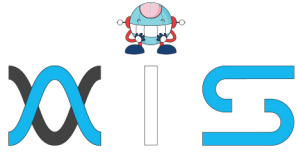
Partners & Affiliates



PECB

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EC-COUNCIL



The program presented, as well as a wide range of programs are products of the partnership of AIS, SAS Management, Inc., and Simplilearn. With a common goal of providing the best practice of facilitating learning with an array of choices available in the online platform in this time of digitization.

Office Addresses

AI Services

Juan Antonio III Building
315 Maysilo Circle, Mandaluyong, Philippines

SAS Management, Inc.

- **Head Office**

Unit 1602 Cityland 10 Tower
2 6815 HV dela Costa cor Ayala Avenue
Makati City, Philippines

- **Branch Office**

Unit 204 Villa Building
Jupiter St. corner Makati Avenue
Makati City, Philippines

- **Branch Office**

Room 201 2nd floor OLS Building
443 Gorordo Avenue., Brgy. Kamputhaw
Cebu City, Philippines

- **Branch Office**

Malaysia - SAS Management
Sdn Bhd 6f-16, IOI Business Park,
Persiaran Puchong Jaya
47170, Selangor

Simplilearn

- **Simplilearn Americas, Inc
Pvt Ltd.**

201 Spear Street, Suite 1100,
San Francisco, CA 94105 United States

- **Simplilearn Solutions
Pte Ltd.**

NALANDA 53/1 C, Manoj Arcade, 24th Main Rd,
Sector 2, HSR Layout, Bengaluru
560102, Karnataka, India.

- **Simplilearn Singapore**

#14-302, The Plaza, 7500A Beach Rd,
Singapore 199591