GAMAKA

Artificial Intelligence Solutions

Pune & Mumbai

WhatsApp: +91-7378493293
Phone: +91-7378483656

enquiry@gamakaai.com
gamakaai.com

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Introduction

About US

- Gamaka AI is a leading High-End Training on Emerging Technology and Placement company in India managed by IT veterans with more than a decade experience in leading MNC companies.
- We are known for our practical approach towards trainings that enable students to gain real-time exposure on competitive technologies. Trainings are offered by employees from MNCs to give a real corporate exposure.

Target Audience

- Freshers from BCA, BCS, BE, BTech, MTech, MCA. MCS
- Final Year/Internship projects for BCA, BCS, BE, BTech, MTech, MCA. MCS
- Non-IT Professionals who've worked mostly with tools like Excel and want to learn how to use R for statistical analysis.
- Business Analyst
- IT Project Managers
- MBA Graduates or business professionals who are looking to move to a heavily quantitative role.
- Engineering Undergraduate/Graduate/Professionals who want to understand basic statistics and lay a foundation for a career in Data Science

No Prior Programming/Coding Skills Required

Program Structure

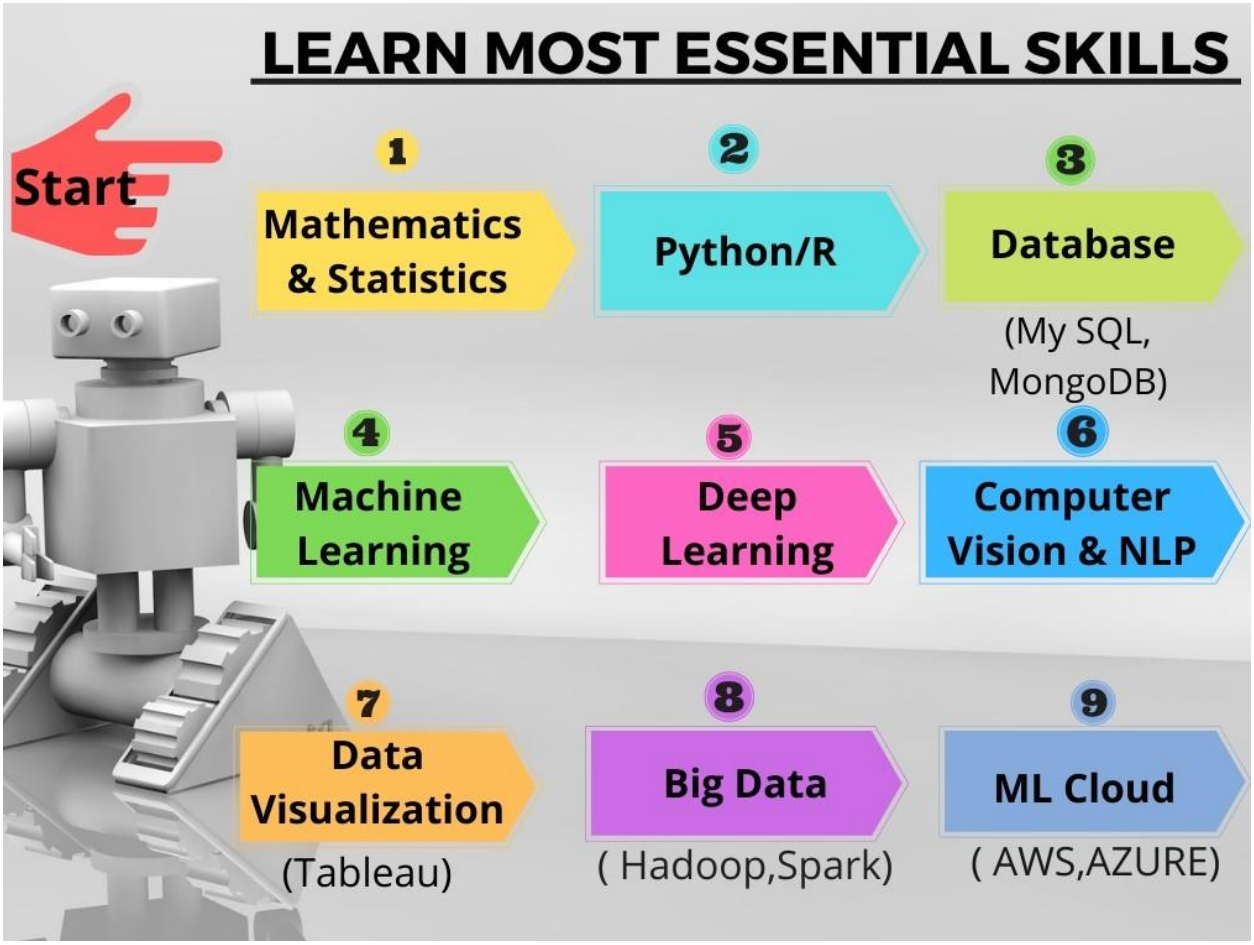
- **Python – Basic & Advanced**
- **SQL & No SQL – MongoDB**
- **Machine Learning**
- **Deep Learning**
- **Computer Vision**
- **NLP**
- **Tableau**
- **Big Data on AWS (data science track)**
- **15 Projects**
- **Internship – 3 months (Internal/Tie-ups)**

Interview Preparation, Resume Building, GIT Profile, 100% Placement Assistance, Projects

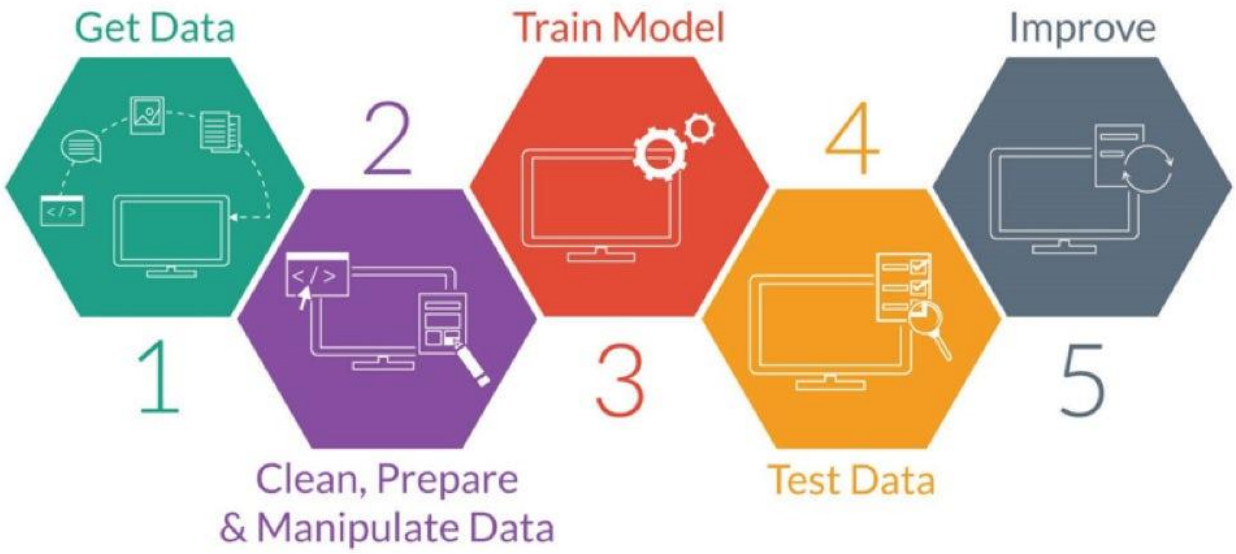
Note: Separate batch & additional 1-month extra sessions for NON-IT Professionals to build strong programming skills from scratch.

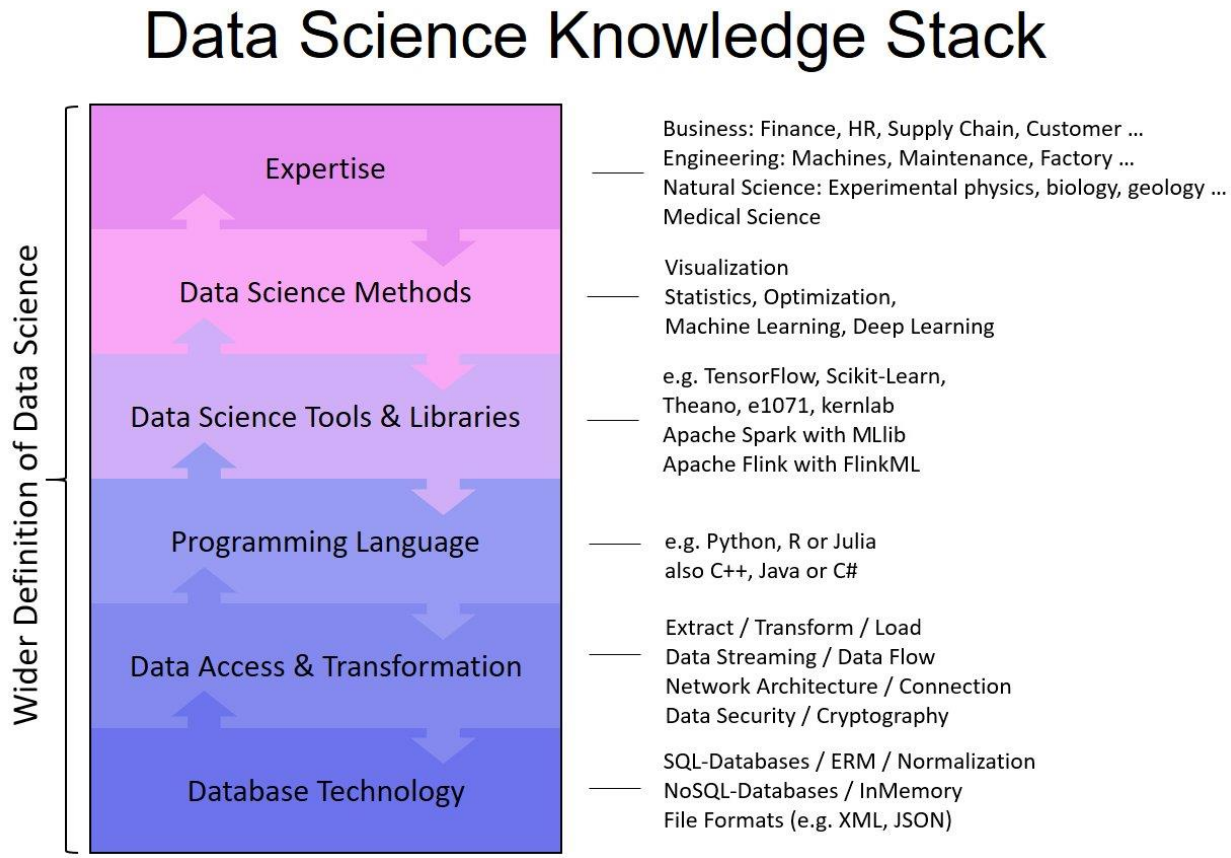
Duration: 4 Months / 250+ hours. For NON-IT: 6 Months

Program Flow



Data Science Process





Projects/Case Studies

- Forecasting Stock and Commodity Prices
- Build your own image recognition model with TensorFlow
- Customer Segmentation and Effective Cross Selling
- Predict fraud with data visualization & predictive modelling
- Chatbot Project using Microsoft Luis/Google Dialog flow/Amazon Lex.
- Deep Learning - Customer Feedback analysis using RNN LSTM.
- Deep Learning - Family member detection.
- Deep Learning - Industry financial growth prediction.
- Deep Learning - Speech recognition-based attendance system.
- Deep Learning - Vehicle Number plate detection and recognition system
- Forecasting Stock and Commodity Prices
- Build your own image recognition model with TensorFlow
- Web Scrapping - Web crawlers for image data sentiment analysis and product review sentiment analysis.
- Predict fraud with data visualization & predictive modelling
- Analyzing Movie Reviews Sentiment.
- Analyzing Music Trends and Recommendations
- Time Series - Arimam, Sarima, Auto Arima
- Time series using RNN LSTM Build your own Recommendation System
- Build your own Python predictive modelling, regression analysis & machine learning Model
- Football Players (Estimating Population Mean from a Sample)
- Election Polling (Estimating Population Proportion from a Sample)
- A Medical Study (Hypothesis Test for the Population Mean) Employee Behavior (Hypothesis Test for the Population Proportion)
- A/B Testing (Comparing the means of two populations
- Customer Analysis (Comparing the proportions of 2 populations)
- Predictive medicine: prognosis and diagnostic accuracy
- Virtual assistance for patients and customer support
- Analyzing Wine Types and Quality
- Creation of drugs - allows choosing, which experiments should be done and incorporates all the new information in a continuous learning loop
- Clustering algorithms for customer segmentation
- Discovering similarities across my Spotify music using data, clustering and visualization
- An End-to-End Project on Time Series Analysis and Forecasting with Python
- Using LSTMs to forecast time-series
- Evolution of a salesman: A complete genetic algorithm tutorial for Python
- A Machine Learning Approach—Building a Hotel Recommendation Engine
- How To Create Data Products That Are Magical Using Sequence-to-Sequence Models
- Deployment of all the project In cloudfoundary , AWS , AZURE and Google cloud platform.
- Deployment - Expose, api to web browser and mobile application retraining approach of Machine learning model.
- Deployment - Devops infrastructure for machine learning model.
- Deployment - AUTO ML, Prediction based on streaming data.

Impact of Data Science

What You Get!!!

Course Completion Certificate

Will I get certified?

Upon successful completion of this data science course, you'll earn a Certificate. The certificate adds the required weight in any portfolio.

Internship Certificate

This certificate will be issued to those pursuing internships with our development team or clients with whom we have tie-ups. Data Science Internship gives opportunity to learn from professionals, gain practical experience in this field, and build a robust professional network.

GAMAKA
INTELLECTUAL MACHINES

39, View, LONDON, U.K.
www.gamakaimuk.com email: info@gamakaimuk.com

09-Dec-2021

INTERNSHIP EXPERIENCE LETTER

This is to certify that Mr. Darshil Doshi was working with Gamaka AI as Trainee Data Analyst on Internship.

Date of Joining	05 Oct 2021.
Date of Completion	06 Dec 2021.
Designation at the time of Leaving	Data Analyst Intern

Scope of Work:
Worked as a Data Analyst Intern in our IT development & consulting division.

His job responsibilities were as follows:

- Interpreting data, analyzing results using statistical techniques.
- Developing and implementing data analyses, data collection systems and other strategies that optimize statistical efficiency and quality

Tools & Technologies Used:

- Anaconda Navigator 2019, Jupyter Notebook 6.0
- Python 3.8, NumPy, SciPy, SciKit Learn, Panda, Matplotlib
- Mathematics, Statistics, Machine Learning – Supervised/Unsupervised
- Deep Learning – Neural Network, TensorFlow

We found him sincere, hardworking & responsible.

We wish him all the success in his future endeavors.

Yours faithfully,
Mahesh Kaneri
Director

GAMAKA INTELLECTUALS LONDON

Note: The document does not carry signature due to COVID-19 situation

Advantages of joining GAMAKA AI

- Instructor led online & classroom interactive sessions
- One-To-One online problem-solving sessions
- Complete Soft Copy of Notes & Latest Interview Preparation Set
- Trainers are working IT professional with top IT MNC's
- 100% Placement Assistance
- Resume Building & Mock Interview Sessions
- 100% Hands-on Training with Live Projects/Case Studies
- Internship & Course Completion Certificate
- 1 Year free subscriptions to Portal for Updated Guides, Notes, POC, Projects & Interview preparation set.
- Extensive training programs with Recorded Sessions
- 24*7 Support on enquiry@gamakaai.com

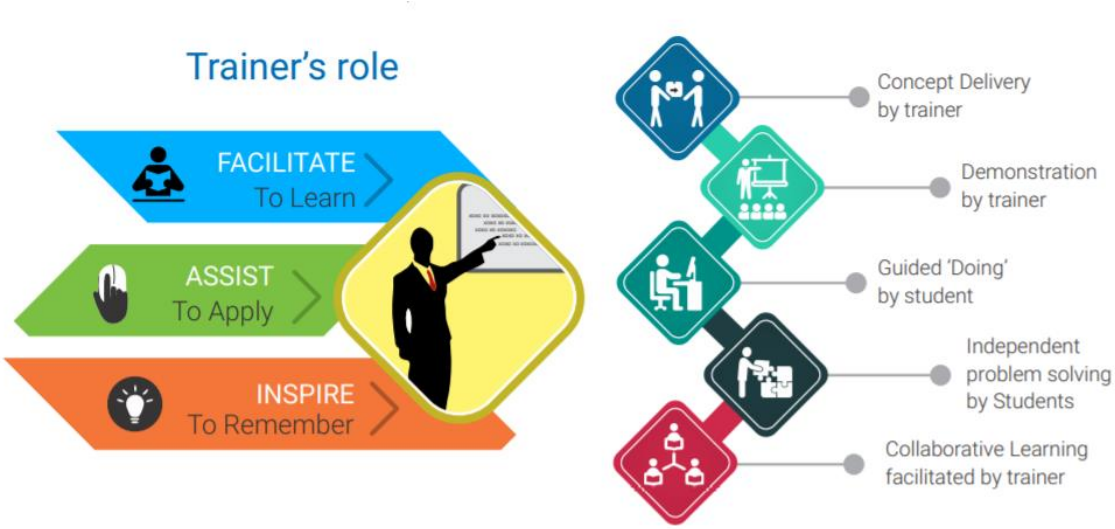
Struggling to Get a Job?

Industry Recruitment Challenge

Strategies to get a job

- Gain Industry Expertise, Internship Experience.
- Presentation skills & Grooming to face challenging interview
- Work on Industrial Projects/Case Studies
- Professional Resume & GIT Profile
- Interview Preparation with Mock Interviews
- Job Assistance & Placement

Trainer Role



Our Students Placed Companies

Python - Basic & Advanced

Duration: 40 Hours with hands on tutorials, 5 Case Studies with Internship

Introduction & Setup

- What is Python and history of Python?
- Why Python and where to use it?
- Discussion about Python 2 and Python 3
- Set up Python environment for development
- Discuss about IDE's like IDLE, Pycharm and Enthought Canopy
- Discussion about unique feature of Python
- Introduction to Anaconda Distribution
- What is Anaconda Distribution?
- How to install Anaconda?
- conda repository
- Anaconda Navigator
- pip and conda to get new package
- pip and conda commands
- set Virtual

Scripting

- First "Hello World" Python Program
- Start programming on interactive shell.
- Using Variables, Keywords
- Interactive and Programming techniques
- Comments and document interlude in Python

Functional Programming

- Python Core Objects and built-in functions
- Number Object and operations
- String Object and Operations
- List Object and Operations
- Tuple Object and operations
- Dictionary Object and operations
- Set object and operations
- Boolean Object and None Object
- Different data Structures, data processing
- Map, Filter & Reduce
- List Comprehension
- Generators & Yields

Conditional Statements and Loops

- What are conditional statements?
- How to use the indentations for defining if, else, elif block
- What are loops?
- How to control the loops, infinite loops
- How to iterate through the various object
- Sequence and iterable objects

UDF Functions and Object Functions

- What are various type of functions
- Create UDF functions
- Parameterize UDF function, through named and unnamed parameters
- Defining and calling Function
- Anonymous Functions - Lambda Functions
- String Object functions
- List and Tuple Object functions
- Dictionary Object functions

File Handling with Python

- Process text files using Python
- Read/write and Append file object
- File object functions
- File pointer and seek the pointer
- Truncate the file content and append dataFile test operations using os.path

Packages & Modules

- Python inbuilt Modules
- os, sys, datetime, time, random, zip modules
- Create Python UDM – User Defined Modules
- Define PYTHONPATH
- Create Python Packages
- init File for package initialization

Exceptional Handing and Object Oriented Python

- Python Exceptions Handling
- What is Exception?
- Handling various exceptions using try....except...else
- Try-finally clause
- Argument of an Exception and create self exception class
- Python Standard Exceptions
- Raising an exceptions, User-Defined Exceptions
- Object oriented features
- Understand real world examples on OOP
- Implement Object oriented with Python
- Creating Classes and Objects, Destroying Objects
- Accessing attributes, Built-In Class Attributes
- Inheritance and Polymorphism
- Overriding Methods, Data Hiding\
- Overloading Operators

Advanced Topics

- Decorators
- Managed Attributes
- Unicode & Byte String
- Metaclasses
- Generators
- Descriptors

Debugging, Framework & Regular expression

- Debug Python programs using pdb debugger
- Pycharm Debugger
- Assert statement for debugging
- Testing with Python using UnitTest Framework
- What are regular expressions?
- The match and search Function
- Compile and matching
- Matching vs searching
- Search and Replace feature using RE
- Extended Regular Expressions
- Wildcard characters and work with them

Database interaction with Python

- Creating a Database with SQLite 3,
- CRUD Operations,
- Creating a Database Object.
- Python MySQL Database Access
- DML and DDL Operations with Databases
- Performing Transactions
- Handling Database Errors

Python Libraries

- Numpy
- SciPy
- Stats Model
- Pandas

Data Science with Python

Duration: 90 Hours with hands on tutorials, 3 Case Studies with Internship

Statistics

- Important statistical concepts used in data science
- Difference between population and sample
- Types of variables
- Measures of central tendency
- Measures of variability
- Coefficient of variance
- Skewness and Kurtosis

Inferential statistics

- Normal distribution
- Test hypotheses
- Central limit theorem
- Confidence interval
- T-test
- Type I and II errors
- Student's T distribution

Computing with Python – NumPy and SciPy

- Mathematical Computing with Python - NumPy
- Understanding NumPy
- ndarray: Purpose, Properties, Types
- ndarray: Class and Attributes
- How to Access Array Elements?
- Indexing, Slicing, Iteration, Indexing with Boolean Arrays
- Studying Universal Functions
- What is Shape Manipulation?
- Linear Algebra
- Scientific Computing with Python – SciPy
- Understanding SciPy
- Studying SciPy Sub-packages
- Sub-Packages: Integration and Optimize
- Sub-Packages: Statistics, Weave, I O
- Linear Algebra

Data Manipulation with Python

- Data Manipulation and Machine Learning with Python
- Data Manipulation with Python – Pandas
- Understanding Pandas
- Defining Data Structures
- Data Operations and Data Standardization
- Pandas: File Read and Write Support
- SQL Operation
- Machine Learning with Python – Scikit
- Natural Language Processing with Scikit
- NLP Environment Setup & Applications
- NLP Sentence Analysis & Libraries
- Scikit – Built-in Modules & Feature Extraction
- Scikit – Grid Search & Parameters

Fundamentals of Machine Learning

- Overview & Terminologies
- What is Machine Learning?
- Why Learn?
- When is Learning required?
- Data Mining
- Application Areas and Roles
- Types of Machine Learning
- Supervised Learning
- Unsupervised Learning
- Reinforcement learning

Machine Learning Concepts & Terminologies

- Steps in developing a Machine Learning application
- Key tasks of Machine Learning
- Modelling Terminologies
- Learning a Class from Examples
- Probability and Inference
- PAC (Probably Approximately Correct) Learning
- Noise
- Noise and Model Complexity
- Triple Trade-Off
- Association Rules
- Association Measures
- Sample Algorithms

Simple Linear Regression

- Correlation
- Regression
- Model Assumptions
- Estimation Process
- Least Squares Method
- The Coefficient of Determination
- Correlation and Regression
- Simple Linear Regression Assignments

Multiple Regression Analysis

- Introduction
- Design Requirements
- Assumptions
- Independence
- Normality, Homoscedasticity, Linearity
- Multiple Regression
- Formal Statement of the Model
- Estimating parameters of the model
- F-test for the overall fit of the model
- Multiple regression model Building
- Selecting the best Regression equation
- Examples/Use Cases
- Interpreting the Final Model
- Multicollinearity and its Diagnostics
- Examples/Use Cases
- Qualitative Independent Variables
- Indicator variables
- Interpretation of Regression Coefficients
- Examples/Use Cases
- Regression Diagnostics and Residual Analysis
- Multiple Linear Regression Using R & Python
- Multiple Regression Assignment

Logistic Regression Analysis

- Theory Behind Logistic Regression
- Assessing the Model and Predictors
- When and Why do we Use Logistic Regression?
- Binary
- Multinomial
- Interpreting Logistic Regression
- Sample size requirements
- he logistic function & Interpretation
- Methods for including variables
- Computational method

Maximum Likelihood Estimation

- Bernoulli distribution
- Multinomial distribution
- Gaussian distribution
- Assessing the Model
- Assessing Changes in Models
- Assessing Predictors
- Methods of Regression
- Complete Separation
- Overdispersion
- MLE using Python

Decision Trees

- Understanding the Concept
- Internal decision nodes
- Terminal leaves.
- Tree induction: Construction of the tree
- Classification Trees
- Entropy
- Selecting Attribute
- Information Gain
- Partially learned tree
- Overfitting
- Causes for over fitting
- Overfitting Prevention (Pruning) Methods
- Reduced Error Pruning
- Decision trees - Advantages & Drawbacks
- Ensemble Models

Random Forests

- Introduction & Motivation
- Ensemble Methods - Bagging, Boosting & Random Forests
- Ensemble Classifiers
- Ensemble Models
- How random forests work?
- Gini Index
- Operation of Random Forest
- Random forest algorithm
- Common variables for random forests
- Random Forest – practical consideration
- Random Forest – Features, Advantages and Disadvantages
- Limitations of random forest
- Random Forest using Python

Support Vector Machine

- Problem Definition
- Separating Hyperplanes
- Linear separable case
- Formula for the Margin
- Finding the optimal hyperplane
- The optimization problem
- The Legrangin Dual Problem
- Importance of the Support Vectors
- VC dimension
- Non-linear SVM
- Mapping the data to higher dimension
- The Kernel Trick
- Important Kernel Issues
- Soft Margin
- The primal optimization problem
- The Dual Formulation
- The "C" Problem: Overfitting and Underfitting
- Model selection procedure
- SVM For Multi-class classification
- Applications of SVM
- Advantages & Drawbacks of SVM

Bayesian Theory

- Axioms of Probability Theory
- Conditional Probability
- Independence
- Joint Distribution
- Baye's Rule
- Bayesian Categorization
- Generative Probabilistic Models
- Naïve Bayes Generative Model
- Naïve Bayesian Categorization
- Example & Exercises
- Naïve Bayes Classifier using Python

K-Nearest Neighbor (K-NN)

- Non-parametric methods
- k-Nearest Neighbor Estimator
- How to Choose k or h
- Strengths and Weaknesses

Boosting

- Gradient Boosting
- Extreme Gradient Boosting
- ADA Boost

Dimensionality Reduction

- Principal Components Analysis (PCA)
- Singular Value Decomposition (SVD)
- Latent Dirichlet Analysis (LDA)
- Latent Dirichlet Analysis (LDA

K Means Clustering

- Parametric Methods Recap
- Clustering
- Direct Clustering Method
- Mixture densities
- Classes v/s Clusters
- Non-Hierarchical Clustering
- K-Means
- Distance Metrics
- K-Means Algorithm
- K-Means Objective
- Color Quantization
- Vector Quantization
- Encoding/Decoding
- Soft Clustering
- Expectation Maximization (EM)
- EM Algorithm
- Feature Selection vs Extraction
- Seed Choice
- Uses of Clustering
- Clustering as Pre-processing

Time Series

- The Art of Forecasting
- Forecasting Approaches
- Qualitative Forecasting Methods
- Quantitative Forecasting Methods
- Time Series & its Components
- Trend
- Cyclical
- Seasonal
- Irregular
- Smoothing Methods
- Moving Average Method
- Exponential Smoothing Method
- Forecast Effect of Smoothing Coefficient
- Linear Time-Series Forecasting Model
- Forecast using Trend Models
- The Linear Trend Model
- Time Series Plot
- Seasonality Plot
- Trend Analysis
- Quadratic Time-Series Forecasting Model

Quadratic Time-Series Model Relationships

- Quadratic Trend Model
- Exponential Time-Series Forecasting Model
- Exponential Weight
- Exponential Trend Model
- Autoregressive Modeling
- Time Series Data Plot
- Auto-correlation Plot
- Evaluating Forecasts
- Quantitative Forecasting Steps
- Forecasting Guidelines
- Pattern of Forecast Error
- Residual Analysis

Data Visualization and Web Scraping

- Data Visualization and Matplotlib
- Python Libraries
- Multiple Plots and SubPlots
- Python Web Scraping and Data Science

- Features of Matplotlib
- Line Properties Plot with (x, y)
- The Parser
- Searching & Modifying the Tree

Bigdata & Hadoop on AWS (Data Science Track)

Duration: 30+ Hours with hands on tutorials

Big data introduction

- What is big data?
- V's of Big data
- (Volume,Velocity,Variety,Veracity)
- Data types
- Distributed System
- Single system vs distributed system
- Solution for Big data : Hadoop

Hadoop core components

- Diff v1 &v2
- Overview of Hadoop eco system
- Map reduce

Introduction to AWS & Cloud

- Cloud computing
- AWS basics
- AWS services
- Setting up AWS freetier Account
- big data computation on AWS
- Access Permissions with S3
- SQL vs. NoSQL Databases
- Databases and Big Data on AWS
- Working on EMR with Hive

Spark overview

- Spark Architecture
- RDD
- Ml lib
- Linear Regression on spark
- logistic regression on spark
- decision tree on spark
- naive bayers on spark
- Xgboost On Spark

AWS ML tools

- Amazon Sagemaker

Deep Learning with TensorFlow, Natural Language Processing & Neural Networks

Duration: 40 Hours with hands on tutorials

Deep Learning Fundamentals

- Introduction to Deep Learning
- Historical Context
- Advances in Related Fields
- Pre-requisites
- Installing the Required Libraries
- Deep Learning Frameworks
- Introduction of each framework - TensorFlow, Theano, Keras, Torch, Caffe
- Architecture of each framework

Introduction to Keras

- Overview of Keras
- Installation Procedure
- - Dependencies
- - TensorFlow backend
- - Theano backend
- Guiding Principles
- - Modularity
- - Minimalism
- - Easy Extensibility
- - Work with Python

Stochastic Gradient Descent (SGD)

- Optimization Problems
- Method of Steepest Descent
- Batch, Stochastic (Single and Mini-batch) Descent
- - Batch
- - Stochastic Single Example
- - Stochastic Mini-batch
- - Batch vs. Stochastic
- Challenges with SGD
- - Local Minima
- - Saddle Points
- - Selecting the Learning Rate
- - Slow Progress in Narrow Valleys
- Algorithmic Variations on SGD
- - Momentum
- Nesterov Accelerated Gradient (NAS)
- - Annealing and Learning Rate Schedules
- - Adagrad
- - RMSProp
- - Adadelta
- - Adam
- Tricks and Tips for using SGD
- - Preprocessing Input Data
- - Choice of Activation Function
- - Preprocessing Target Value
- - Initializing Parameters
- - Shuffling Data
- - Batch Normalization
- - Early Stopping
- - Gradient Noise

Artificial and Conventional Neural Network

- Building an ANN
- Building Problem Description
- Evaluation the ANN
- Improving the ANN
- Tuning the ANN
- Conventional Neural Networks
- CNN Intuition
- Convolution Operation
- ReLU Layer
- Pooling and Flattening
- Full Connection
- Softmax and Cross-Entropy
- Building a CNN
- Evaluating the CNN
- Improving the CNN
- Tuning the CNN

Feed Forward Neural Networks

- Unit
- - Overall Structure of a Neural Network
- - Expressing the Neural Network in Vector Form
- - Evaluating the output of the Neural Network
- - Training the Neural Network
- Deriving Cost Functions using Maximum
- Likelihood
- - Binary Cross Entropy
- - Cross Entropy
- - Cross Entropy
- - Squared Error
- - Summary of Loss Functions
- Types of Units/Activation Functions/Layers
- - Linear Unit
- - Sigmoid Unit
- - Softmax Layer
- - Rectified Linear Unit (ReLU)
- - Hyperbolic Tangent

TensorFlow

- TensorFlow installation
- Introduction to TensorFlow
- TensorFlow APIs
- Tensors
- Importing TensorFlow
- Building & Running a computational graph
- Variables: Creation, Initialization, Saving, and
- Loading
- Tensor Ranks, Shapes, and Types
- Sharing Variables
- Reading Data
- Supervisor: Training Helper for Days-Long
- Trainings.
- TensorFlow Debugger (tfdbg) Command-LineInterface Tutorial: MNIST
- How to Use TensorFlow Debugger (tfdbg) with
- tf.contrib.learn
- Exporting and Importing a MetaGraph
- TensorFlow Version Semantics
- TensorFlow Data Versioning: GraphDefs and
- Checkpoints
- TensorBoard: Suite of visualization tools

Convolutional Neural Networks (CNN)

- Convolution Operation
- Pooling Operation
- Convolution-Detector-Pooling Building Block
- Convolution Variants
- Intuition behind CNNs

Recurrent Neural Networks (RNN)

- RNN Basics
- Training RNNs
- Bidirectional RNNs
- Gradient Explosion and Vanishing
- Gradient Clipping
- LSTM (Long Short-Term Memory) wit
- Time Series
- Case Study

Residual

- Autoencoders
- Custom Metrics
- Hyperparameter tuning
- GPU Programming in Cloud: Case Study
- Distributed TensorFlow

Self-Organizing Maps

- Self-Organizing Maps
- SOMs Intuition
- Plan of Attack
- Working of Self-Organizing Maps
- Revisiting K-Means
- K-Means Clustering
- Reading an Advanced SOM
- Building an SOM

Boltzmann Machines

- Energy-Based Models (EBM)
- Restricted Boltzmann Machine
- Exploring Contrastive Divergence
- Deep Belief Networks
- Deep Boltzmann Machines
- Building a Boltzmann Machine
- Installing Ubuntu on Windows
- Installing PyTorch

Database (Sql Server/Oracle)

Duration: 10 hours with hands on tutorials

- DDL, DML, RDBMS
- CODD Rule
- Query
- Insert Delete Update
- Table
- Table Join
- Data Types
- Set Operations
- Constraints
- Sub query
- Aggregate Functions
- Date Functions
- Math Functions
- String Functions
- Data Convert Functions
- Analytical Functions
- Sequence Identity
- View
- Index
- Cursor
- Transact SQL
- Normalization & De-normalization
- Procedure Function(PLSQL)
- Trigger
- Transaction(ACID)
- XML in SQL
- System Functions
- System Settings
- System Tables Views
- User Role/Security

Tableau

Duration: 40+ Hours with hands on tutorials

Introduction

- What is Data Visualization?
- Scope of Data Visualization
- Tableau and its uses
- Scenario and Objectives
- Installation and Application
- Features and Architecture of Tableau
- Terminology and Definitions
- Tableau Work Space
- Files and Folders

Visualization Design and Data Types

- Defining Data
- Terminology of Data
- Types of Data
- Data Roles
- Dimension vs Measure
- Continuous vs Discrete
- Exporting Data
- Connecting Sheets
- Tableau Visualization Engine

Tableau and Data Connections

- Understanding Data Connections
- How to connect to Tableau Data Server?
- Data Connections: Joining and Blending
- Defining a Join
- Various Kinds of Join
- Usage of Join
- Right Outer Join
- Custom SQL Enabled
- Data Blending and Tableau
- Usage of Data Blending
- Data Blending in Tableau
- What is Kerberos Authentication
- Working of Kerberos Authentication

Data Organization

- Need to Organize Data
- How to Organize and Simplify Data
- What is Filtering
- How to Apply a Filter to a View?
- Filtering on Dimensions
- Totals and Sub totals
- Aggregating Measures
- Data Spotlighting
- Summary Card
- String Functions and Logical Functions
- What is Sorting
- How to Sort Data in Tableau
- Types of Sorting
- Combined Fields
- Group and Aliases
- Hierarchies
- Sets
- Tableau Bins
- Fixed Size and Variable Sized Bins
- Drilling
- Drilling Methods
- Aggregations

Formatting and Annotations

- Understanding Formatting and Annotations
- What is Spatial Analysis
- What is built-in Geocoding
- What is Custom Geocoding
- How to add Caption to Views?
- Adding Tooltips to Views
- Using Title Caption and Tooltip
- Formatting the Axes
- Edit Axis Option
- Formatting Window
- How to Format Mark Labels

Chart Types

- Objectives of Chart Types
- How to Use Dual Charts
- What is Dual Axis?
- Using Combination Charts
- How to Use Gantt Charts for Activity Tracking
- Using Motion Chart
- What are Box and Whisker Plots
- Using Reference Lines and Reference Bands
- What is Pareto Analysis
- What are Water Fall Charts
- How and What of Market Basket Analysis

Calculations

- Objectives of Calculations
- Strings Date Logical Calculation
- Arithmetic Calculations
- Aggregation Options
- Grand Totals and Sub-Totals
- Quick Table Calculations
- Custom Table Calculations
- Ad-hoc Analytics
- LOD Calculations
- Parallel Period
- Moving Averages
- Running totals
- Window Averages
- Trend Lines
- Predictive Models

Parameters, Mapping, and Locations

- What is a Parameter
- How to create a Parameter
- Parameter Controls
- What is Mapping
- Modifying Locations within Tableau
- Importing and Modifying Custom Geocoding
- Background Image
- Exploring Geographic Search
- Pan Zoom Lasso and Radial Selection

Dashboards and Work Sharing

- What is a Dashboard?
- How to build Dashboards
- How to build Interactive Dashboards
- What are Action Filters?
- How to create Story Boards
- Best Practices to create Dashboards
- Annotations
- Tool Tips and keyboard short cuts
- Sharing work
- Tableau Online
- Tableau Reader
- Tableau Public

Mongo DB

Duration: 10 hours with hands on tutorials

- Overview
- "NoSQL"
- What is MongoDB?
- JSON primer
- When / why should you use MongoDB?
- Installation and Administration
- Installing MongoDB
- Starting and stopping MongoDB servers
- The JavaScript console
- MongoDB Basics
- Servers
- Databases
- Collections
- Documents / Objects
- CRUD
- Indexes

Computer Vision & NLP

Computer Vision:

- GAN
- Generative Model Using GAN
- BERT
- Semi-supervised learning using GAN
- CNN Architectures
- LeNet-5
- AlexNet
- GoogLeNet
- VGGNet
- ResNet
- SSD
- Faster R CNN

NLP:

- Text Processing & Analytics
- Chat bots
- Spacy
- RNN
- Transfer Learning