# Data Science Crash Course - free online session

**Time**: Every Saturday 3:00 PM IST to 4:30 PM IST ( 07 Sep 2019 - 12th Oct 2019)

Location: <a href="https://zoom.us/j/3535653731">https://zoom.us/j/3535653731</a>
Prerequisite: Passionate to learn new things
WhatsApp Group: Join whatsapp group

https://chat.whatsapp.com/HoyhU35m61d1WOZXpVGla0 to get updates

**Note:** Please forward to interested people.

Instructor: Balaji Chopparapu

Objective:

This course introduces you to the field of data science and helps you to understand how it relates to AI,ML,NLP and Deep Learning etc. This course primarily focus on helping you to build machine learning models with good understanding of underlying mathematical concepts like Linear Algebra, Descriptive Statistics, Probability Distributions etc.

The entire course is thought using python as programming language using Spyder/ Jupyter IDE. Popular data science libraries like numpy,pandas,SKlearn and matplotlib will covered. Visualization is mainly dealt with Matplotlib and Tableau Tool

#### **Course Contents:**

Part-0 Introduction

Overview

Areas of Data Science

Popular Data Science Tools

Careers in Data Science

Statistics Refresher

Probability and Distributions

Assignments and Solutions

## Part-1 Data Preparation

**Data Preprocessing** 

**Importing Dataset and Libraries** 

Missing Data

**Categorical Data** 

Splitting Dataset into the Training Set and Test Set

Feature Scaling

**Assignments and Solutions** 

Part-2 Modeling

Regression

Simple Linear Regression

Multiple Linear Regression

Polynomial Regression

Support Vector Regression

**Decision Tree Regression** 

Random Forest Regression

**Evaluating Regression model performance** 

Assignments and Solutions

## Classification

**Logistic Regression** 

**K-Nearest Neighbors** 

**Support Vector Machine** 

Kernel SVM

Naive Bayes

**Decision Tree Classification** 

**Random Forest Classification** 

**Evaluating classification model performance** 

**Assignments and Solutions** 

#### Part -3 Mode Maintenance

Introduction

How does model deterioration look like

Why do models deteriorate

Three levels of maintenance of deployed models

Assignments and Solutions

#### Part-4 Visualisation

Introduction to Tableau

Tableau for Data Mining

Advanced Data mining with Tableau

Assignments and Solutions