The Valley Bootcamp

Data Science With R

Overview

The Valley Bootcamp is a coding boot camp based out of Bangalore. We excel in providing high quality, hands on training by industry experts. Our students undergo rigorous training in software development and advanced topics. We try to bridge the growing gap between graduation and employment.

Goals

- Get used to Python development setup of R

- Learn about data structures, functions, package

- Learn about Probability and statistics, the backbone of Machine learning

- Get in-depth insights on Data Visualizations

- Learn about feature engineering, one of the central themes of ML

- Master different libraries used to apply ML techniques in the industry

- Learn various ML techniques and apply them on real world data sets

Contact

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Syllabus

Week	Topic
Week 1	Install R and R studio Why R for Data Science Applications of R Basics of R(Data types,operators)
Week 2	Matrices, Factors, Lists Functions Data Frames Programs to solve
Week 3	If statements, Loops File handling
Week 4	Data Analysis Standardising values, invalid handling Exploratory Data Analysis Univariate/Bivariate Analysis
Week 5	Advanced R/Visualisations Data pre-processing and data visualization Chart types Inbuilt R plotting functions
Week 6	GGplot in depth
Week 7	Statisitcs Inferential statistics Probability, Distributions
Week 8	Hypothesis testing Density functions Sampling distributions P Value/Critical value methods,examples
Week 9	Introduction to Machine Learning Supervised algorithms • Linear regression • Logistic regression • SVMs

Week 10	Supervised algorithms

- Decision tree and Random forest
- Time Series
- naïve Bayes

Week 11	Model evaluation

Unsupervised algorithms
- K means clustering
- PCA

Week 12	Group Project

Neural networks and intro to Deep Learning
Kaggle projects and how to approach them.