DIGITAL nest

Education | Training | Consulting

Education Icon of Hyderabad -2018
Times of India Group

Education Icon of Hyderabad -2017
Times of India Group

Institute of the year - 2015
Silicon India

Certificate Program in Data Science

Class Room I Online I Corporate Training

Learn From

IIT & IIM ALUMNUS

IBM Business Partner

Global Training Provider

5000+ Trainees | 20+ Countries

200+ Batches | 500+ Success Stories

Education Icon of Hyderabad -2018

Times of India Group

Education Icon of Hyderabad -2017

Times of India Group

Institute of the year - 2015

Silicon India

FACULTY

Our world class faculty hail from premier intuitions like IIT's & IIM and also eminent data scientists working with top notch companies across the globe.

&

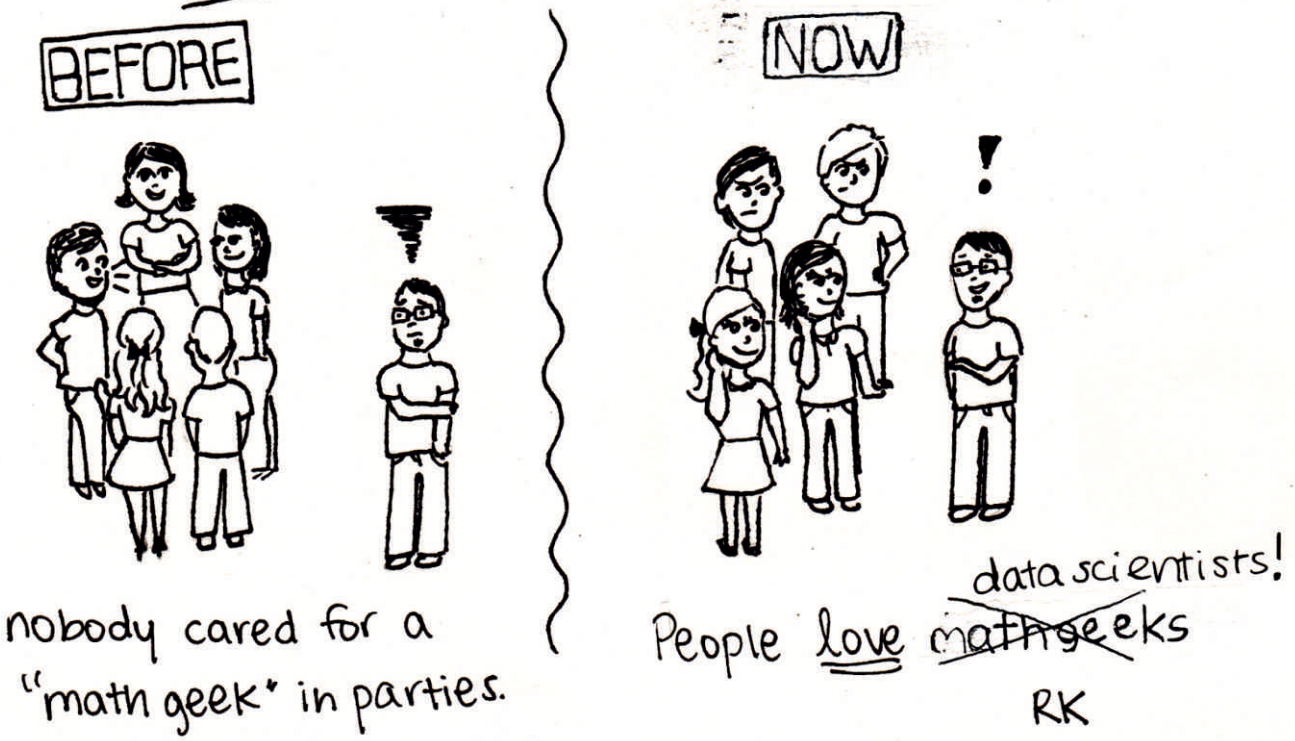
"Data Scientist is
the sexiest job
of the 21st century"

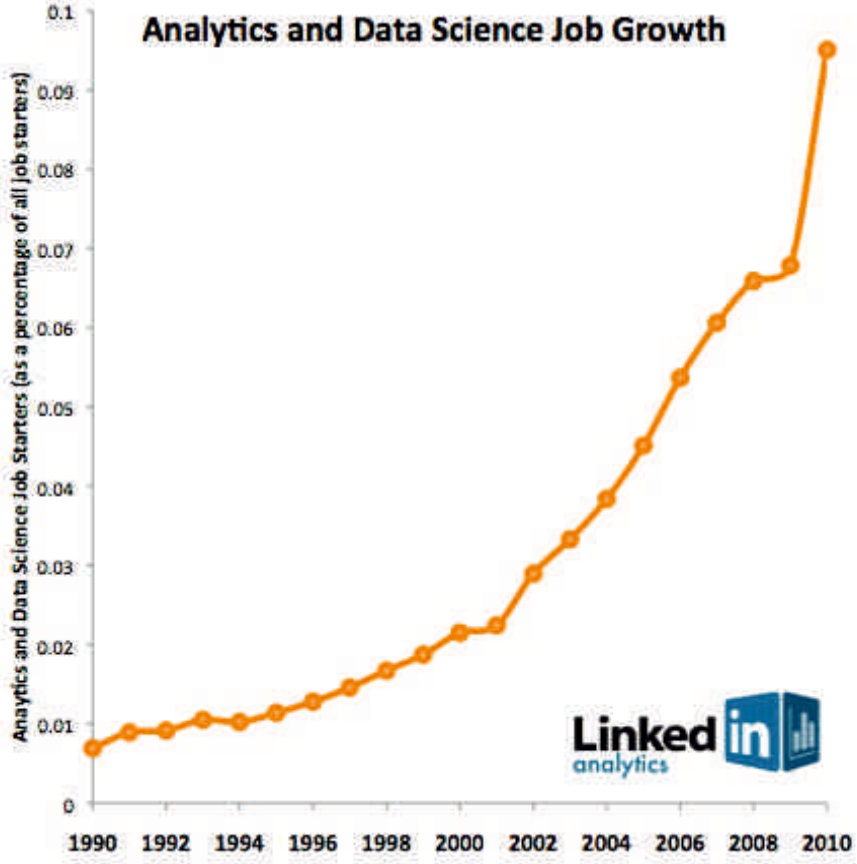
– Harward Business Review

“Data Scientists : The definition of sexy”

- forbes

The Rise of Data Scientists





FAQ'S

DURATION

100 Hrs | 2 Months | 180 Hrs | 4 Months

ELIGIBILITY

BE/MBA/BSc/B.Tech./Msc/M.Tech - IT/Statistics/CSE

CERTIFICATIONS

Digital Nest Certificate

LAPTOP CONFIGURATION

OS: Windows X, Ram: 6GB, HDD: 1TB

ROLES

Data Scientist, Data Engineer, Machine Learning Scientist, Business Analytics Specialist, Data Visualization Developer, BI Engineer, BI Solution Architect, BI Specialist, Analytics Manager, Machine Learning Engineer, Statistician, Data Mining Specialist, Natural Language Programmer, Spatial/GIS Analyst, Neuroscientist, Information Architect, Financial Analyst, Pythonist, AI Researcher, Social Science Researcher, Computational Physicist.

AVG PACKAGES

3.2-5 Lakh p.a. (Fresher) | 5-15 Lakh p.a. (Experienced)

PRE REQUISITE

There are no pre-requisites to learn DATA SCIENCE

KEY HIGHLIGHTS

Training by Real Time Experts

Material, Case Studies & Assignments

One-On-One with Industry Mentors

Dedicated Student Manager

100% Assured Placement Assistance

Hands on Training

Doubt Clarification Sessions

Limited Strength

Resume & Interview Prep Guidance

Course is curated by subject matter experts in Data Science

DATA SCIENCE MODULES (customized to industry requirement)

Beginner L1

Certificate Program in Data Science

DURATION
100 Hrs | 2 Months

TOPICS

- Mathematics
- Statistics
- Python
- Machine Learning
- Kaggle Project
- Interview & Resume Building

Intake
20 per batch

Fee:

~~Rs. 35,000/-~~

Rs. 25,000/*-

incl. 18% GST

Advanced L2

Certificate Program in Data Science

DURATION
180 Hrs | 4 Months

TOPICS

- Mathematics
- Statistics
- Python
- Machine Learning
- R Programming
- SQL
- Deep Learning
- Tableau
- Aws For Data Science
- Natural Language Processing
- Kaggle Project
- Interview & Resume Building

Intake
15 per batch

Fee:

~~Rs. 65,000/-~~

Rs. 55,000/*-

incl. 18% GST

Introduction to Data Science

- What is Data Science?
- Data Science Life Cycle
- What is Machine Learning?
- What is Business Analytics?
- What is Artificial Intelligence?
- Data Science vs Machine Learning vs AI
- Types of Data
- What is BigData?
- Software vs Data vs Cloud
- Real time applications on Machine Learning

Statistics

- Data Types
- Statistical parameters, variance, standard deviation, range
- Categorical and Quantitative Data
- Descriptive Statistics
- Statistical Inference
- Sampling and Sampling Distributions
- Correlation, Covariance and Causation
- Central Limit Theorem
- Confidence Interval
- Hypothesis Testing and error types
- t-test and types of t-test
- Analysis of Variance(ANOVA)
- Introduction to Probability
- Probability Distributions
- Bernoulli, Uniform, Binomial, Normal Distribution
- Poisson and Exponential Distribution
- Skew Normal Distribution
- Z-Score

Data Manipulation using SQL

- Introduction to SQL and Data bases
- SQL developer installation
- Data types
- Data types and Operators
- Create and Drop data base
- DDL,DML, DCL ,TCL, Sorting commands and other keywords
- Advanced SQL-Wild cards, Constraints, Joins, Unions, NULL, Alias, Truncate, Views, Sub queries
- Exam

Exploratory Data Analysis (EDA) and Data Visualization

- What is EDA and its importance
- Statistical approach(Data Collection, Descriptive statistics, Data Mining)
- Importing the Data
- DataFrames
- Variables, Transformation
- Standardization and Normalization
- Validation and Interpretation
- Distributions
- Histograms, Outliers
- Summarizing distributions
- Graphs
- Bar Charts
- Box-whisker plot
- Scatter plot
- Pie Charts
- Bubble Charts

R Programming :

- Why R and importance of R in analytics
- Installation guidelines for R and R-studio
- Working Directories
- Data Types
- Operators
- Loops- For and While
- If-else statements, Nested statements
- Objects, and Vectors
- Strings
- Arrays
- Lists
- Factors
- Data Frames
- Pipe operator
- Functions
  (Predefined and Userdefined)
  apply, l-apply, s-apply, m-apply, t-apply, v-apply
  Subset/filter, which, sample, match, sort, mutate, grep, summary, gsub, select, groupby, gather, separate, Posixct
  Joins(Inner, Outer, Left, Right, Semi, Anti)in Data Frames.
- Univariate Analysis
- Dplyr, Lubridate, Tibble

Python Programming

- What is Python
- Importance of Python in Data Science
- Python Installation guidelines (Anaconda Navigator)
- Loops, Nested Loops, For, While loop
- Performance measurement of loops
- Loop control statements
- Continue, Break, Pass
- Class, Constructor and methods

Python Fundamentals

- Keywords
- Built-in Functions
- String Formatting
- Indexing
- Slicing
- Sequences
- Error handling in Python(try, catch, finally)
- Ignoring Warnings
- User-defined functions
- Nested functions
- Lambda, zip and map
- Local and global variables
- If-else statements, Nested statements
- Loops, Nested Loops, For, While loop
- Performance measurement of loops
- Loop control statements
- Continue, Break, Pass
- Class, Constructor and methods

Python Data Structures

- Lists, Lists Comprehensions
- Sets
- Tuple
- Dictionary
- Importance of each type

Data Handling with Python

- Introduction to NumPy, Pandas
- Arrays and Matrix
- Importing and exporting datasets in Python
- Creating Data Frames
- Data Manipulations
- Scikit-Learn libraries
- Data Visualizations in Python
- Matplotlib, Seaborn, and GGplot
- Feature Engineering: Feature Selection and Extraction
- Model Selection
- Training, Testing and K-Fold cross validation

Machine Learning :

Introduction to Machine Learning

- Types of Machine Learning
- What is Supervised, Un-Supervised and Reinforcement
- What are the types of each learning technique
- Algorithms used in Machine Learning techniques
- Difference between Data Science, Machine Learning and AI

Generalized Linear Models(GLM)

- Introduction to generalized linear models
- Regression vs Classification
- Understanding of Linear and Logistic Regression
- Underfitting and Overfitting
- Trade-off between Bias and Variance
- Regularization techniques (Ridge, Lasso, Elastic-Net Regression)
- Ordinary Least squares
- Maximum Likelihood
- Sigmoid Function
- Cost Function
- Gradient Descent
- One-hot Encoding
- Label Encoding
- Model Evaluation metrics
- Feature Engineering (Features Selection, Extraction)
- R-Square, Adjusted R-Square, RSME
- Confusion Matrix
- Evaluation metrics (Precision, Recall, F-Score, Accuracy)
- Sensitivity and Specificity
- ROC-AUC curves
- Assumptions of Linear Regression
- Techniques to improve model performance
- Imbalanced Data
- Sampling issues- Oversampling
- and Under sampling SMOTE, ADASYN and Near Miss

Decision trees and Random Forests :

- Introduction of Decision Tree and its applications
- Types of Decision Tree
- Terminologies in Decision Tree
- Pros and Cons of Decision Tree
- CHAID analysis
- Root nodes Identification
- Gini Index, Entropy, Chi-Square, Reduction in Variance
- Solution for overfitting in Decision Tree
- Tree pruning
- Hyperparameter tuning
- Random Search and Grid Search for auto selectionof parameters
- What is Bagging?
- Introduction to Random Forest and its applications
- Importance of Random Forest
- Significant feature selection using Random Forest classifier

Boosting Machines

- Ensembling Techniques
- Bagging vs Boosting
- Gradient Boosting Algorithms
- Gradient Descent in Boosting Algorithms
- Gradient Boosting Machines, XGBoost, and AdaBoost
- Regression and Classification boosting techniques
- Stacking
- Pros and Cons of boosting Machines

K-Nearest Neighbors (KNN)

- What is KNN and why we use it?
- KNN Classification and Regression
- Curse of dimensionality and introduction to dimensionality reduction
- Pros and Cons of KNN
- Outlier treatment and anomaly

Naïve Bayes and SVM

- What is Naïve Bayes
- Bayes theorem, Conditional Probability
- Real time applications
- Pros and cons of Naïve Bayes
- What is Support Vector Machines(SVM)
- Training time complexity
- SVM Classifier
- Hyperplane, margin and Kernel
- Hyperparameter tuning
- Linear and Non-Linear SVM

Dimensionality Reduction

- Introduction to Dimensionality Reduction and its importance
- Principal Component Analysis(PCA)
- Kernel PCA
- Singular Value Decomposition(SVD)
- Linear Discriminate Analysis(LDA)
- T-Distributed Stochastic Neighbor Embedding (t-SNE)
- Applications of Dimensionality Reduction

Time Series Forecasting

- Introduction to Forecasting
- Data processing and indexing time
- Time Series forecasting
- Understanding of Stats Models
- Auto Regressive Integrated Moving
- Average(ARIMA) model
- Components: Seasonality, Trend and Noise
- Autocorrelation
- Parameter Selection for ARIMA Time series
- Forecasting and Smoothing methods
- Forecasts Validation
- Simple moving average
- Exponentially weighted moving average

Clustering

- Introduction to Clustering
- K-means Clustering
- Elbow method
- Hierarchical Clustering
- Real time applications

Text Analytics

- Introduction to Text Analytics and Text Mining
- Introduction to NLP
- Real time applications
- Extracting text from files
- Data cleaning
- Introduction to NLTK library
- Count Vectorizer
- Understanding of Stopwords and regular expressions
- Stemming and Lemmatization
- Word Cloud
- N-grams
- Fuzzy String Matching
- Levenshtein Algorithm
- Jaro-Winkler Algorithm
- Cosine Similarity
- Named Entity Recognition(NER)

Chatbot Architecture

- NLP for Chatbot
- Understanding Rasa Framework
- Rasa NLU
- Named Entity Recognition (NER) using Spacy
- Intent Classification
- Rasa Core - Dialog Management
- Case study: Application of Chatbots in Banking Industry

Deep Learning

- Introduction to Neural Networks
- Understanding of ANN
- Understanding of CNN
- Understanding of RNN
- Basic understanding of Feed Forward and Backward propagation
- Gradient Descent in Neural Networks
- Stochastic Gradient Descent in
- Neural Networks
- Use case of ANN in Python

Data Visualization Using Tableau

Introduction

- Installation of Trial Version of Tableau Public
- Design Flow
- Data Visualization
- Connecting Tableau to various Data Sources
- Measures and Dimensions
- Colors, Labeling and formatting Exporting Work sheet

Basics of Tableau

- A-B Ad-hoc Testing
- Aliases
- Reference Line
- Anomaly detection
- Sorts and Filters
- Time Series

Advanced Concepts of Tableau

- Trend Line Analysis
- Dash Board Creation
- Formatting in tableau
- Forecasting using Exponential Smoothing
- Granularity and Trimming
- Seasonality
- Animations
- Assignment

- Chart plotting
- Heat Maps
- Data Joining
- Data Blending

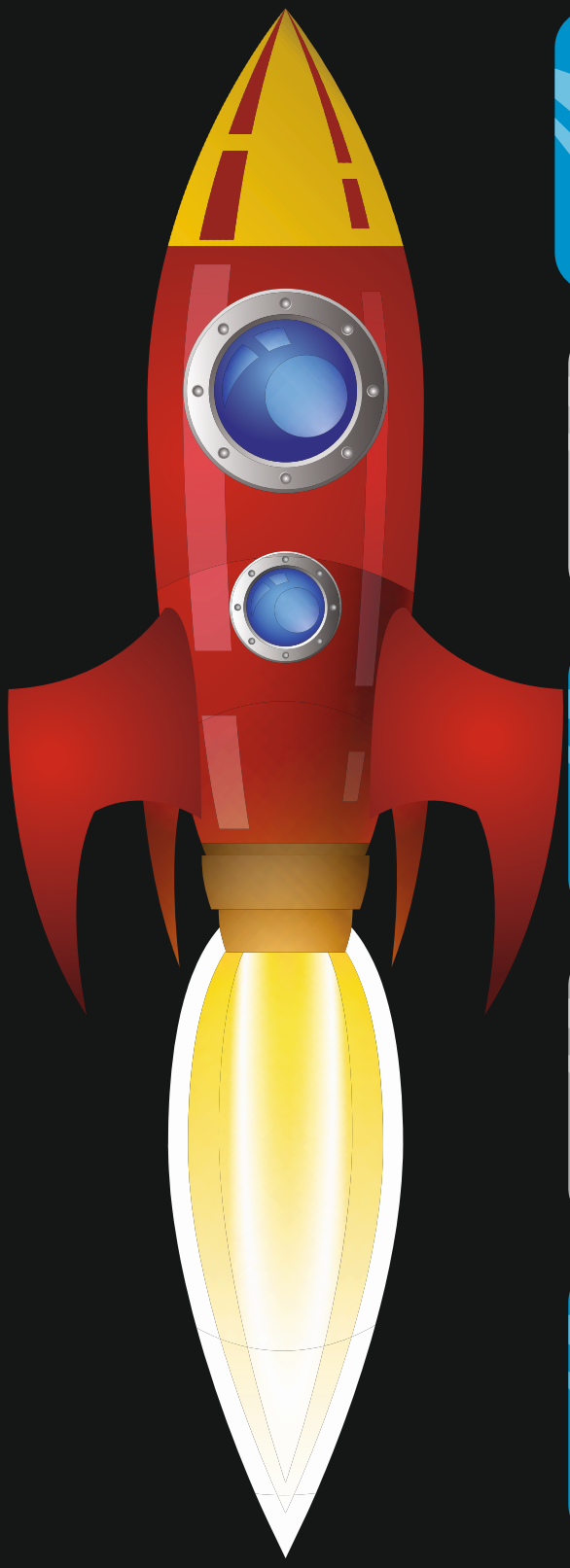
AWS for Data Science

- Why AWS for Machine Learning?
- Understanding several AWS services.
- Setting up an S3 bucket to store data.
- Practical Data Science with AWS Sagemaker
- Sagemaker Studio Notebooks
- Training and Evaluating an ML Model
- Deploying the Model

Capstone Projects & Assignment

- Project Assignment
- Doubt Clarification Session

LEARNING PLAN



01 Month

Basics of Mathematics & Statistics

- Descriptive Statistics
- Introduction to Probability
- Linear Algebra
- Inferential integrity
- Exploratory Data Analysis & Data Visualization

02 Month

R & Python Programming

- Learn Python & R language for programming.
- Intro to Python & R for Data Science team Feature Selection
- Learn exploratory Data Analysis
- Learn about Nupmpy Pandas & DPLYR

03 Month

Basic and Advanced ML Tools

- Decision Trees and Random Forest Test
- Clustering
- Support Vector Machines
- Dimensionality Reduction:

04 Month

Building your Profile

- Github Profile Building
- Practice via competitions like -Analytics Vidhya. Kaggle Datahack.
- Discussion Forum - kaggle Discussion.

05 Month

Apply for Job and Internship

- Identify the right jobs for and apply on
- Naukri | Likedin
- Analytics Vidhya | Datajobs
- Kaggle Job Portal
- Internshala
- indeed.co

What our Trainees Say...

Excellent Curriculum Loved the training on Data Science

Rohit
Analyst
Cognizant

I love the ambiance and trainer was excellent. Assignments and tests really helped me to quickly grasp the concepts Thank you Digital Nest

Pavan
Student - IIT KGP

Our Trainees Hail from

Each year, over 1200 trainees
widen their horizons
with courses at Digital Nest...

LEARN *NOW*

PAY *LATER*

INTRODUCING

Flexible EMI Options*

at **0**% Interest

EDUCATION LOAN PARTNERS

CAPITAL FIRST

Propelld

*Terms and conditions apply

Our Placements Partners

naukri.com

Ready to get incubated in **Data Science** Lets Start

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City Center bus stop,
PANJAGUTTA, Hyderabad.

2nd Floor,
Above Karnataka Bank,
Silicon Valley Road,
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