JGi JAIN
DEEMED-TO-BE UNIVERSITY

BUILD YOUR CAREER IN EMERGING TECHNOLOGIES WITH

DATA SCIENCE
MASTERS

ONLINE | INSTRUCTOR LEAD | CLASSROOM

THE 'BOOMING' DEMAND FOR DATA SCIENTISTS

Data Science skills are one of the most sought after vitals today having massive demand globally. These professionals are one of the highly demanding in the 21st century indeed and their demand will surely rise in the near future. According to research, the Data Science industry will create 11.5 million jobs by 2026.

Every company collects massive amounts of data from its formal and informal sources. This data has huge potential to be converted into meaningful information if it is curated properly. Therefore, the role of the skilled Data Science Professional becomes dominant which has upsurge the need of such professionals in industries like Pharma, Finance, Marketing, Retail, FMCG etc.

FingerTips Data Science Masters Programme in collaboration with Jain (Deemed-to-be University) provides the ocean of opportunity to learn, imbibe and nurture the data science skills. The course is designed by industry experts and covers tools like R, Python, AI & ML, Power BI etc. that fulfill the requirements of industry. The recognition of prestigious Jain University boosts the vitality of course in Data World.

JAIN UNIVERSITY ONE OF THE BEST UNIVERSITY IN INDIA

Jain Online is the e-learning platform of the University that offers UGC recognized diplomas and degrees to empower students and professionals in over 60 different specializations. The NAAC "A" graded university has collaboration with professional bodies from across the globe to deliver a wide range of cross- functional and open elective online degrees. These programs are on par with any classroom degree programs in terms of learning, quality, values and pedagogy.

International Faculty, students from 43+ countries, convenience of learning, experienced pool of trainers, innovative learning methods and dedicated career support team etc are the benefits that makes JAIN online a space to flourish your career on every front.

6
Private Universities

#2
Ranked #2 under Young Universities in Karnataka KSURF (2019)

High performer partner Institute Award Global Exhibition on services (GES)

Ranked 6th Private Universities in India by India Today

nirf
Top Indian Universities
Among the top 100 Universities in India -NIRF ranking (2020)

90
Top Indian Universities
Ranked 90-95 among Top Indian Universities QS World Rankings

REASONS TO CHOOSE FINGERTIPS FIRST

Become industry-ready

Industry experts mentorship

3000+ students Trained

Pool of 300+ companies

100% Placement Assistance

Real time Industry Exposure

fingerTips #1

Recommend by leading industry professionals

SHIFT TOWARDS DATA SCIENCE

Data Science will create 11 million jobs in India by 2026

Among Top 10 fastest growing jobs in tech industry - TOI

650% increase in data science jobs since 2012

There has been 39% rise in demand of Data Science Professionals

Average income of Data Scientists is around Rs. 8 LPA.

#3 Job ranking #3 among top Jobs in 2020

DATA SCIENCE POSITIONS

Data Science Expert

Data Scientist

Data Analyst

Data Engineer

Data Science Consultant

Data Mining Expert

PROGRAM HIGHLIGHTS

Get JAIN University Certification

Years of experienced faculty

300+ dedicated learning hours

Practice on Live Projects

Industrial Mentorship Session

Become Industry-ready

15+ industry oriented tools

75+ Projects & 15+ Case Studies

Capstone Projects and Hackthone

CAREER SUPPORT

Dedicated career support team facilitates you from the beginning and provides assistance for profile building, interview preparation and placements at end.
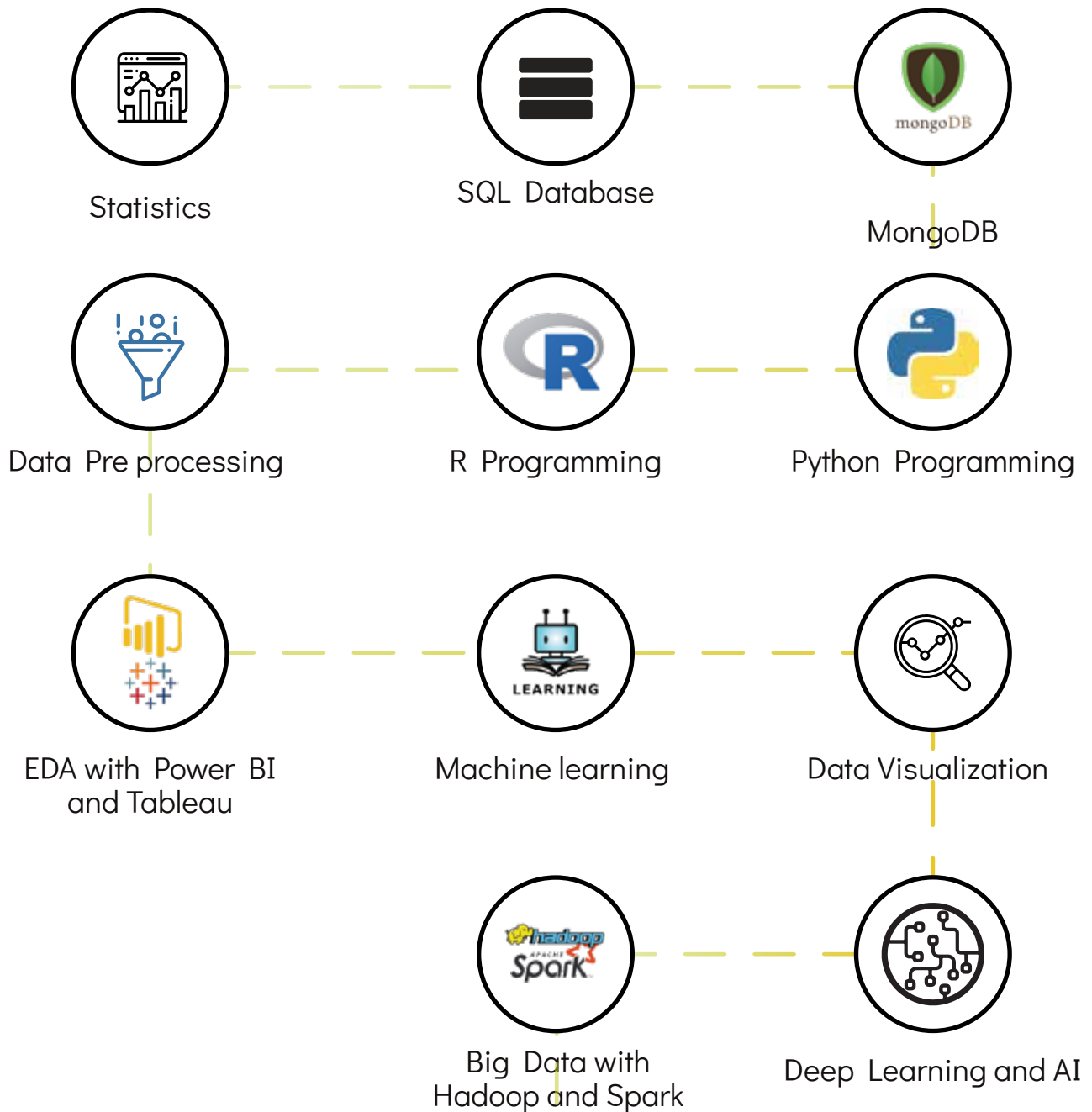
Mock interview preparation

100% **Placement Support**

Technical Rounds

Guidance in curating Work Portfolio

LEARNING PATH

Statistics

SQL Database

MongoDB

Data Pre processing

R Programming

Python Programming

EDA with Power BI and Tableau

Machine learning

Data Visualization

Big Data with Hadoop and Spark

Deep Learning and AI

Certified Data Scientist by

JGi JAIN
DEEMED-TO-BE UNIVERSITY

COURSE CURRICULUM

Statistics Essentials & Fundamental of **Data Science**

Live & Interactive

Understanding Data & Data Science

> Introduction to Data & Data Types
> Numerical parameters to represent data
> Data Science v/s Data Analytics v/s Business Intelligence
> Importance of Data Science in today's data-driven world, application of Data Science
> Role of Data Scientist
> Introduction to Databases and its Types
> Steps of Data Science & Machine Learning
> Use cases of Data Science in different industries

Statistics Fundamentals

> Introduction to Statistics
> Descriptive v/s Inferential Statistics
> Variables and Types of Variables
> Measure of Center and Measure of Spread
> Measures of Central Tendency
> Measures of Dispersion
> Mean, Mode, Median
> Range, Standard Deviation, Variance,Quartile,IQR
> Covariance and Correlation between data
> Create and learn about Histogram

Advanced Statistics

- Introduction to Inferential Statistics
- Sample v/s Poplulation
- Explore Hypothesis Testing
- Null and Alternative hypotheses
- Type I error vs Type II error
- Establishing a rejection region and a significance level
- What is the p-value and why is it one of the most useful tools for statisticians
- Learning about T-test
- One Sample, two Sample T-test
- In Depth Knowledge about Anova, One Way Annova and Two way Annova
- Chi-square Analysis
- Parametric and Non-parametric tests

Probability

- Introduction to probability
- Why probability
- Simple Probabilty
- Addition Rule, Union, Intersection
- Bayes Theorem
- Bernoli's Theorem
- Independent & Dependent Events
- Conditional Probability
- Probability Distributions
- "Uniform Distribution"
- "Normal Distribution"
- What is Central Limit Theorem
- Skewness & Kurtosis
- Sampling and different sampling techniques
- What is Outlier and it's importance

Introduction to Database

> What is Database
> Types of Databases-
> > Relational Database,
> > Object-Oriented Database,
> > Distributed Database,
> > NoSQL Database,
> > Graph Database,
> > Cloud Database,
> > Centralization Database,
> > Operational Database
> Database Components

Introduction to SQL

> Introduction to Structured Query Language
> Different types of databases
> What is RDBMS-Relational Database Management System
> Data types and functions
> Creating Databases and Tables

SQL Operators with Syntax

> Introduction to SQL Operators
> Types of SQL Operators
> > SQL Arithmetic operators,
> > SQL Comparison operators,
> > SQL Logical operators,
> > Compound operators,
> > SQL Unary Operator

Working with SQL: Join, Tables, and Variables

> Creating Databases and Tables
> Explore Entities and Relationships
> DDL & DML Statement
> Select Statement, Aggregate Functions
> Insert into, Where, Order By, Distinct, Group By, Like, In, Between Operators,
> Limit Aliases, and & or Clause
> Update & Delete Query
> SQL Joins-What are Joins, Inner Join, Left Join, Right Join, Full Join
> Multiple Joins-Joining More than two tables

SQL Views, Functions, and Stored Procedures

> Introduction to subqueries in sql and apploications
> How to write Subqueries in SQL
> Methods to create and view subqueries
> Subqueries with INSERT statement
> Subqueries with UPDATE statement
> Subqueries with DELETE statement

Advance Sql

> Understanding of more Sql Functions
> Learning about Sorting
> Grouping Data together
> Developing skill to Filter
> Explore More about Subqueries
> Primary Key, Foreign Key constraints
> Unique key, Null constraints

Overview of Data Science using Python

❯ Introduction to Python programming language
❯ How Python is used for Data Science applications
❯ Industeries working with Python
❯ Applications of Python in diffreent sectors
❯ Features of Python and how is Python different from
          other programming languages

Python Enviornment set up and Essentials

❯ Python installation and set up
❯ Python IDE working mechanism
❯ Running some Python basic commands
❯ Python variables, data types and keywords
❯ Libraries and Modules in Python

Basic Python Construct

❯ How to use indentation like tabs and space
❯ Built in data types in Python
❯ Number, Strings, List, Tupple, Set, Dictionaries
❯ Basic Operators and Functions
❯ Conditional and Control Statementslike if,else, break,
         continue, Loops in Python-For, While and more
❯ Lambda expression

NumPy for Mathematical Computing

> Introduction to Numpy
> What are arrays and matrices, array indexing, array math, Inspecting a NumPy array, NumPy array manipulation
> Basic Numpy operations
> Using Arithmetic Operators with Numpy
> Using Numpy with Conditional Expressions
> Arithmetic Operators with Numpy 2D Arrays
> Arithmetic Functions in Numpy
> Logical Operators in Numpy

Data Manipulation with Pandas

> Introduction to Pandas
> Basic Functionalities of series and Data Frames
> Transforming Data-sorting rows and columns
> Slicing and Dicing Functions
> Missing Value Handling

Data Vizualization with Matplotlib and Seaborn

> Introduction to Data Visualization
> Introduction to Matplotlib
> Using Matplotlib for Plotting Graphs

Introduction to Machine Learning

> Introduction to Machine Learning
> Use Cases of Machine Learning
> Types of Machine Learning
> Machine Learning Modelling Flow
> What is Supervised v/s Unsupervised Learning?
> What is Reinforcement Learning?
> Challenges of ML

Linear Regression

> Use cases of Linear Regression
> Understanding Simple Linear Regression
> What is Multiple Linear Regression?
> Learning about Lasso Regression
> Learning about Ridge Regression
> Measuring Performance Metrics

Supervised Learning

> Introduction to Supervised Learning
> Supervised Learning- Real-life Scenario
> Supervised Learning Flow
> Types of Supervisied Algorithms
> What is Logistics Regression?
> Linear Regression Vs Logistic Regression
> Understanding Logistic Regression
> What is Decision Tree?
> Decision Tree Formation
> Overfitting of Decision Trees
> Information Gain
> Gini Index

Unsupervised Learning

> Introduction to Unsupervised Learning
> Unsupervised Learning- Real-life Scenario
> Unsupervised Learning Flow
> Types of Unsupervisied Algorithms
> What is Clustering?
> Learning about K-means Clustering
> Optimal Number of Clusters
> Understanding Hierarchical Clustering
> Hierarchical Clustering Example
> Accuracy Metrics

Ensemble Learning

> Understand Ensemble Learning
> Esemble Learning - Real-life Scenario
> Esemble Learning Flow
> Types of Esemble Learning Algorithm
> Understanding about Random Forest
> Math Behind Random Forest
  Bagging & Boosting

> Learn about Ada Boost
> Adaboost Algorithm
> Gradient Boosting
> Xg Boost
> Model Selection
> Common Splitting Strategies

Feature Engineering

> Factor Analysis
> Principal Component Analysis (pca)
> First Principal Component
> Eigenvalues and Pca
> Practice: Pca Transformation
> Feature Encoding
> Feature Scaling
> Feature Selection
> Outlier Treatment

Introduction to R

> Setting up R Environment
> Data Types With R
> Operators and Functions
> In Depth Knowlegde about R Syntax

Data Manipulation and Cleaning

> Data Loading
> Selecting Data
> What are Filters?
> Why and How to Group Data?
> Arrange Data
> Learn to Merge Data

> Chaining & Pipeline
> Efficiently Handing Missing Values
> Replacing Values
> Manipulating Data
> Indexing a Dataframe
> Concatenate the Dataframes

Data Visualizaiton

> Introduction to Visualization
> Learn about Exploratory data analysis
> Explore Different Graphs
> Develop Advance Ggplot2 Library Skills

Introduction to Deep Learning and AI

- Introduction of AI
- What is deep learning ?
- Machine learning vs deep learning
- Real life applications of Deep learning
- Human Brain vs Artificial Neural network
- Introduction to TensorFlow
- Introduction to Keras

Introduction with Tensorflow

- Introduction to TensorFlow
- Tensorflow Hello World
- Linear Regression With Tensorflow
- Logistic Regression With Tensorflow
- Deep Neural Networks

Convolution Neural Network

- Intoduction to Convolutional Neural Network
- CNN Design and Architecture
- Neural Style Transfer
- Transfer Learning Method
- Famous CNN architectures
- What is transfer learning?

Recurrent Neural Networks

> Recurrent Neural Network (RNN)
> Architecture of RNN
> Backpropagation In RNN
> Applications of RNN
> Problems With RNN and Why we need LSTM
> Long short-term memory (lstm)

Deep learning applications

> Image processing
> Natural language processing (nlp)
> Chatbots
> Genrative Adversarial Neural Networks
> Computer Vision
> Object Detection
> Audio Analysis

Introduction to Spark

- Introduction to Big Data
- How Hadoop Solves the Big Data Problem?
- What is Hadoop? Preview
- Hadoop's Key Characteristics
- Hadoop Ecosystem and HDFS
- Hadoop Core Components
- Hadoop Cluster and its Architecture
- Hadoop: Different Cluster Modes
- Hadoop Terminal Commands
- Introduction to Apache Spark
- Why Apache Spark
- Data-Parallel to Distributed Data-Parallel
- Latency
- Introduction to Pyspark
- Setting Spark with Python

Spark Dataframe basics

- Introduction to Spark DataFrames
- Spark DataFrame Basics
- Spark DataFrame Basic Operations
- Groupby and Aggregate Operations
- Missing Data
- Dates and Timestamps

Machine Learning with Mlib

› Introduction to Machine Learning and ISLR
› Machine Learning with Spark and Python with MLlib
› Applying Learning Regression using Spark
› Linear Regression
› Logistic Regression
› Decision Tree
› Random Forest
› K Means Clustering
› Using Spark for NLP

Streaming using spark

› Understanding Streaming
› Streaming Tweets using Spark
› Graphx

Working with **Tableau**

Introduction to Tableau

›
› Installing Tableau
› Tableau desktop vs Tableau Public
› User Interface of Tableau Public
  Data Preparation

Connecting different sources

›
› Connecting to Various DataSource
› Connection to Text File
› Connection to Excel File
  Connection to Database1

Working with Metadata

- Working with Metadata
- Data types
- Rename, Hide, Unhide and Sort Columns
- Default Properties of fields
- Dealing with NULL values

Join Data

- What are Joins?
- Relationships vs Joins
- Create a Join
- Join types
- Inner Join
- Left Join
- Right Join
- Full Join
- Union Join
- Join Clauses
- Null Values in Join Keys
- Cross-Database Joins

Data Blending

- What are Blends
- Steps for Blending
- Understand Primary and Secondary Data Sources
- Work Across Blended Data Sources
- Define Blend Relationships for Blending
- Establish a Link
- Multiple Links
- Differences between Joins and Blending
- Differences between Relationships and Blending
- Blending Limitations

Filters

- Types of filters
- Dimension Filter
- Date Filter
- Measure Filter
  Visual Filter
- Interactive Filter
- Data source Filter
- Context Filter

Charts and Graph

- Creating Charts in Tableau
- Bar Chart
- Stacked Bar Chart
- Line Chart
- Scatter Plot
- Histogram
- Dual-Axis Charts
- Combined-Axis Chart
- Funnel Chart
- Cross Tabs
- Highlight Tables
- Maps

Advance Charts

- Box and Whisker's Plot
- Bullet Chart
- Bar in Bar Chart
- Gantt Chart
- Waterfall Chart
- Pareto Chart
- Control Chart
- Funnel Chart
- Bump Chart
- Step and Jump Lines
- Word Cloud
- Donut Chart

Level of Detail Expression

- LOD expressions and including concept
- Expressions Syntax
- Aggregation and replication with LOD expressions
- Nested LOD expression
- SVM
- Naive Bayes
- K-Means Clustering
- Feature Selection

Working with Dashboards

- Introduction to Dashboards
- Building a Dashboard
- Dashboard Layouts and Formatting
- Interactive Dashboards with actions
  Designing Dashboards for devices
  Story Points

Excell with Power BI

Introduction to PowerBI

> Introduction to Power BI
> Why use Power BI?
> Essential Benefits of Power BI
> Components of Power BI
> Architecture of Power BI
> Building Blocks of Power BI

Power BI Desktop

> Overview of Power BI Desktop
> Data Sources in Power BI Desktop
> Connecting to a Data Sources
> Query Editor
> Query Ribbon
> Report
> Data
> Model

Query Editor

> Clean and Transform your data with Query Editor
> Combining Data – Merging and Appending
> Cleaning Irregularly Formatted Data
> Keeping & Removing Rows
> Removing Empty Rows
> Appending Queries
> Working with Columns
> Formatting Data & Handling Formatting Errors
> Pivoting & Unpivoting Data
> Splitting Columns

Data Modeling

› Modelling Data
› Manage Data Relationship
› Cardinality: Many-to-One & One-to-One
› Cross Filter Direction & Many-to-Many

M Query

› Introduction to M Query
› M Query Syntax
› Expressions
› Values
› Let Expression
› Operators
› Type conversion
› Create a query with Query Editor
› Simple Power Query M formula steps
› Power Query M function

DAX

› Introduction to DAX
› Why is DAX important?
› DAX Syntax
› Data Types
› Diving Into Operators
› DAX Functions
› Filter and evaluation context
› Measures in DAX
› Tables and Filtering
› DAX Queries
› Create simple measures
› Compund measures

Exploratory data analysis

- Power BI Charts
- Tables and Matrixes
- Slicers
- Map Visualizations
- Gauges and Single Number Cards
- Modifying colors in charts and visuals
- Shapes, text boxes, and images
- What Are Custom Visuals?
- Page layout and formatting
- KPI Visuals
- Z-Order
- Get detailed
- Power View and Power Map
- Formatting and customizing visuals
- Visualization interaction

Filters

- Types of Filters
- Automatic filters
- Manual filters
- Include and exclude filters
- Drill-down filters
- Cross-drill filters
- Drillthrough filters
- URL filters
- Pass-through filters

Power BI Report Service

- Report Server Basics
- Web Portal
- Paginated Reports
- Data Gateways
- Scheduled Refresh

Self-Paced Courses

Complete Guide to **MongoDB**
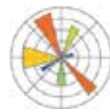
Working with **Advance Excel**

Text Analysis with **NLP**

16000+

More **Self Paced** Courses

TOOLS

COMPANIES HIRING

CERTIFICATE

BUILD YOUR CAREER IN EMERGING TECHNOLOGIES WITH

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Fingertips believe in the 360 degree development of our learners through rigorous training programme. Our Advance AI Master Programme focuses on making our learners successful through the highly demanding course. The course offers in-depth technical training, Industry Interactions, Hands on Practice to meet the desired needs of learners. The years of experienced team provide one to one support during training to understand and solve the complex problems of Artificial Intelligence and Machine Learning. Assurance of placement assistance at the end of course is one thing which makes us the most reliable company in this segment.

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