

# FITA<sup>®</sup>

TRAINING | PLACEMENT

Accredited by



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AHEAD  
WITH FITA

# **ABOUT FITA ACADEMY**

FITA is a leading Skill development and Placement company managed by IT veterans with more than two decades of 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 & Foreign Languages.

***Transforming Students & IT Professionals into Industry-Ready Workforce since 2012!***



**GREAT  
FUTURE  
STARTS  
FROM  
HERE**

# Since

**120+**  
**COURSES**

# 2

**75,000+**  
**STUDENTS**

**1000+**  
**EXPERT  
TRAINERS**

# 0

**100%**  
**PLACEMENT  
SUPPORT**

**3000+**  
**PLACEMENT  
TIEUPS**

# 7

**15+**  
**BRANCHES\***

## Classroom Locations



Chennai



Bangalore



Coimbatore



Madurai



Pondicherry

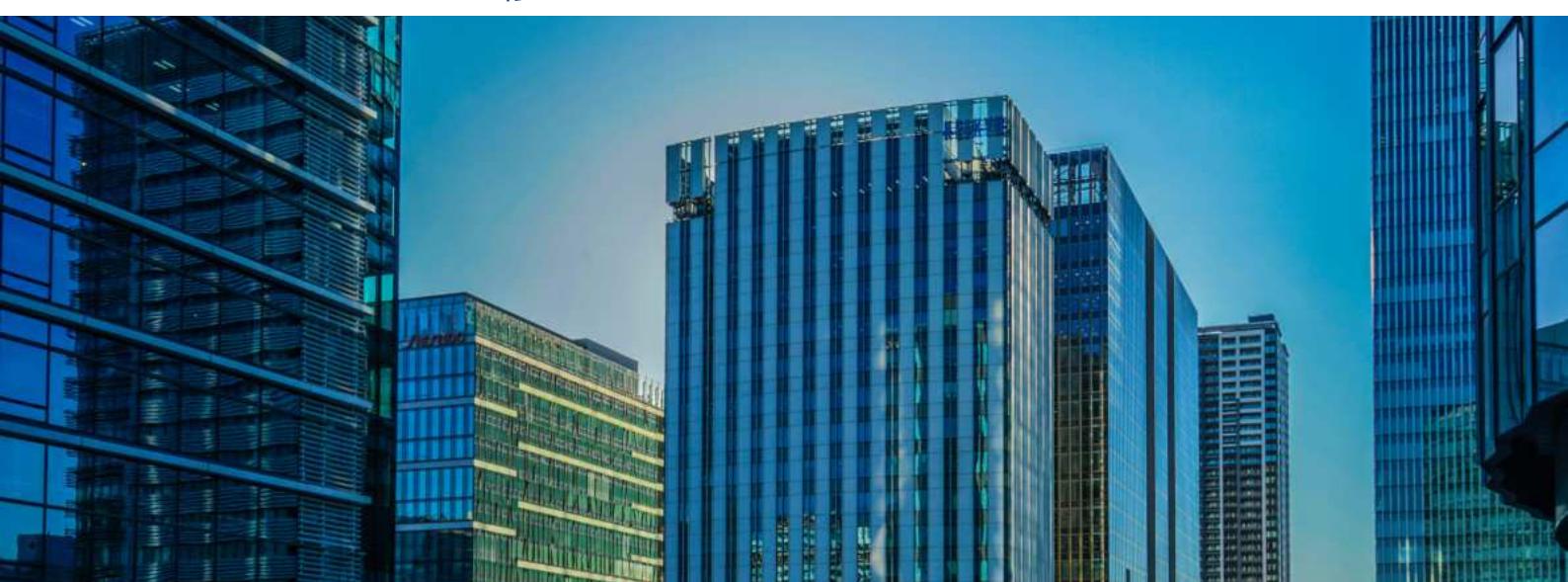


Tiruppur

\*Includes all the group companies

# 300+ Corporate Clients

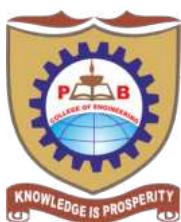
## CORPORATES:



# COLLEGES:

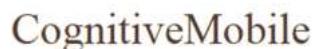


**KINGS**  
ENGINEERING COLLEGE



# OUR STUDENTS WORK AT:

**FITA**<sup>®</sup>  
TRAINING | PLACEMENT



# RECENTLY PLACED STUDENTS:

**FITA**  
TRAINING | PLACEMENT

Mithin Kumar Salesforce Admin and Dev Dallas Airport Solutions India Pvt Ltd	Saranya Saravanakumar Advanced Digital Marketing Media7	SANIYA SUMAN I Expert Digital Marketing Namma Chennai Farms	Viswanathan Selvamony UI React + Fullstack Dysts Technologies Pvt Ltd	Nisha H Advanced Digital Marketing Seerree Global Services	Disvinyla Graphic Design MGAR Digital 360 Pvt Ltd	Soundarya M UI React Featurepreneur	SAKTHIVEL B Java fullstack with React Moschip	D.S.Anandan CCNA Holoware	Priyanka Sankar Salesforce (Admin+Dev+Lightning) Onward Technologies
Nithin J Python fullstack with React JS W2S Solutions	Divya Venkatesan Advanced Digital Marketing What's next Infotech	Midhun A React JS Iconic Software Systems	Pooja BM Flutter V Labs & Solutions	Baskar J Advanced Digital Marketing Credentech Solutions	Anoop Sigundhay CCNA Balbhas Business Dynamics Pvt Ltd	Hemnath N Web designing & MERN FULLSTACK Lamynnaals Technologies Private Limited	CHRISTOBER C JAVA FULL STACK WITH JS & REACT ByzAly Software Solutions Pvt Ltd	Sneha M UI/UX DESIGN - PHOTOSHOP & FIGMA What's Next Infotech	Alam Jyothi ADVANCED DOT NET WITH MVC Tootify Technologies
Ajeeth P JAVA FULL STACK WITH JS & REACT Innspark Solutions Pvt. Ltd.	Kiruthik Roshan Advanced Digital Marketing Network Worth Networks	Shri Hari M JAVA FULL STACK WITH JS & REACT Qbotica	Hari Sanjeev Expert Digital Marketing Network Worth Networks	Kumudha Search Engine Optimization MDQuality Apps solutions LLP	Ajai Joseph Selenium Automation Using Java NCompass Techstudio Pvt Ltd	Niranjan B Advanced Dot Net Servion Global Solutions Pvt Ltd	Joel Abraham Python (Django) Phigitalz	Kokila Flutter N/A Freelance	Rajesh Kumar B Manual and Selenium With Java qBiotics
Dinesh babu Manual Testing qBiotics	Dhanalakshmi V Advanced Digital Marketing Infinix	Loganathan G WEB DESIGN & MERN STACK Cogncis Digital	NV Vasan UI UX Designing using photoshop and Figma Tabtree	VIVEK RA Advanced UI UX Designing and Development What's next Infotech	Shanthikani M MANUAL & SELENIUM AUTOMATION USING JAVA Iconic Software Systems	N Veera Thanesh WEB DESIGN & MERN STACK Lamynnaals Technologies Private Limited	Akhay Kumar Advanced Digital Marketing Ui UX Designing	Anandraj Graphic Designing KUN Capital	Jalkumar Digital Marketing Blockworks
Srimen Graphic Designing VLead Design and Services	Balraj B Digital Marketing ADM Infinix	Rakesh K Android Credohalth	Kalaivaran E Python (Django) Jeevitam	Rajavel Digital Marketing ADM Infinix	Florence Heity Digital Marketing Astromar Group	Vigneswaran S UIUX Designing Banhive Technologies Pvt Ltd	Nithya Sri Digital Marketing Desha Group	Naghia Gayathri Data Science with Python Mac-V	Vishnu Mohan Salesforce Wilco Source
Salma Bilal Tableau TIVS Credit Services	Praneeth Narayanan Expert Digital Marketing Maxx Global Supply Chain	Sivaranjini M Dot Net with Fullstack CIPEIT (Ponmalai)	Kavyapriyadarshini PM Front-End Rapidique Digital Solutions	Neelakandan Python with Full Stack Sixth Star Technologies	Gokulapriya V Manual and Selenium Automation Yugam Consulting	Prakash Raj M Data Science with Python CreditAccess Gramen	Bharath Rathnam Front-End Developer Tesserackt Pvt Ltd	Priyanka M PHP + Web design + Wordpress BCC Martech	Helen Gracy R Data Science with Python Yugam Consulting
Sharmi P UI React Aggrandise Ventures	Nimesh D Flutter Duff Digital	Dharani M Digital Marketing Infinix	Rini Maria Theresa UI/UX Designing MEL Systems and Services	Aishwarya R AWS Solutions Architect Quadrasytems Pvt Ltd	Shanmugapriya S UI React Aggrandise Ventures	Pavithra P Testing Learninnovators	Shalini M Power BI KBR	Kavin P UI/UX Designing MEL Systems and Services	Joshua J Digital Marketing Infinix
Siva Anandan Java Zenberry Technologies	Sankara Narayanan Dot Net Ivy Mobility Solutions	Kiruba Shankar Victor Testing Movate	Saravanan V N Digital Marketing Appkerts Enterprise Solution	Mukeshkumar S UI Development Datarooms Sterling Pvt Ltd	Nathan R React JS Datarooms Sterling Pvt Ltd	Sneka S UI Development - React Regainit Solutions	Jabez Kershom Paul MERN + Web Design Snovation	Prabhakaran Java Full Stack Snovation	Kavya Digital Marketing Infinix
Raghurathan Web Design And Development Dots Digital	Abi Prakesh Rajan Web Design + MERN Merit Data and Technology	Geetha T Tally Phoenix Electric	Babin Ethical Hacking SBA Infosolutions Pvt Ltd	Mohammed Ibrahim Thaha CCNA Digitron Computer	Dharini UI/UX Designing Ducimia Analytics	Nowhid Khan Nimmanapalli AWS Solution Architect Selfservit Solutions Pvt Ltd	Charan Simha Sekharam CCNA Sound and Vision Studios	Sai Prasanth Dot Net Infosion Software Pvt Ltd	Jothi Basila Web Design & Development Infinix

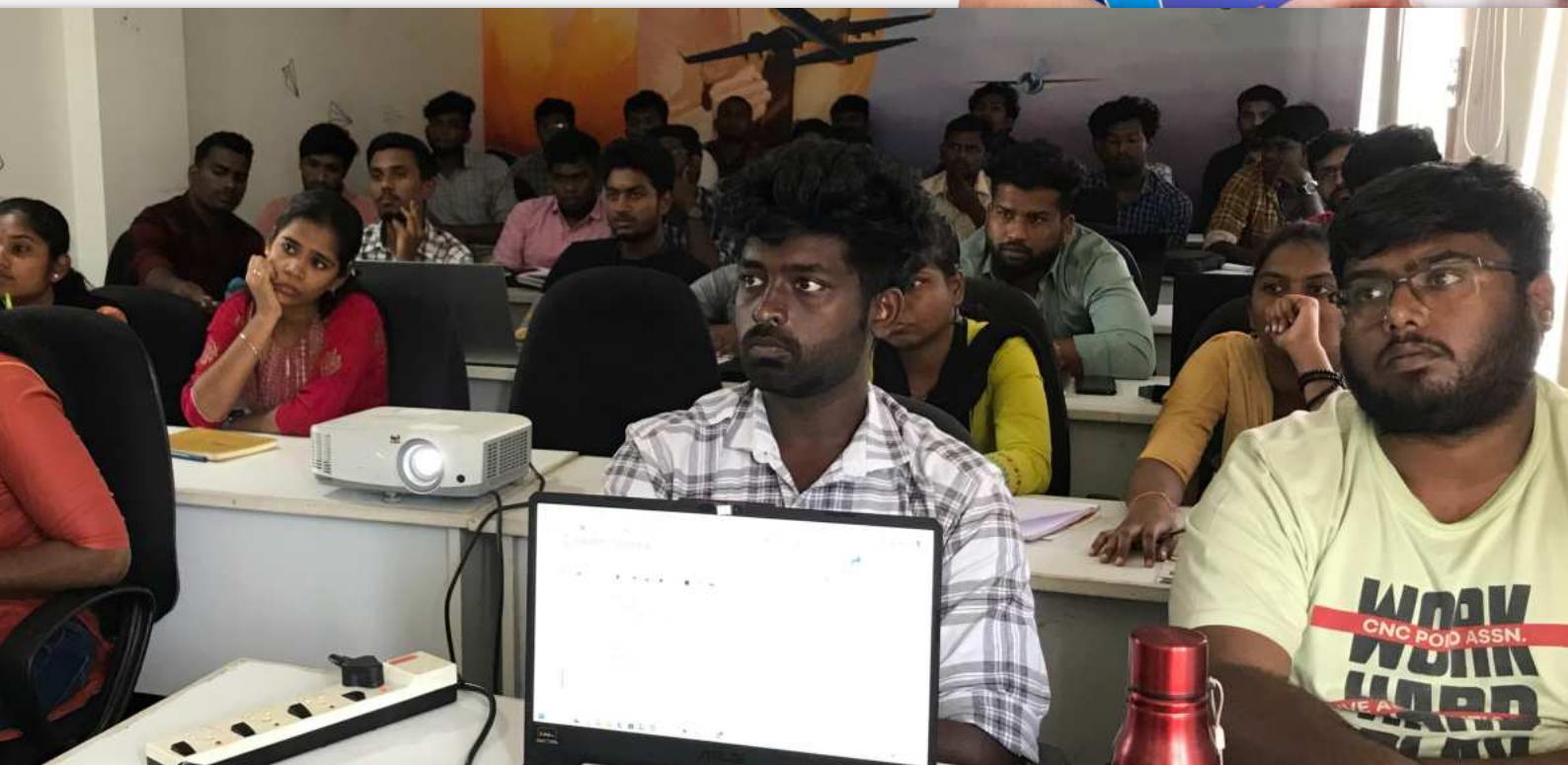


## Why Learn Data Science with Python at FITA Academy:

-  Live Capstone Projects
-  Real time Industry Experts as Trainers
-  Placement Support till you get your Dream Job offer!
-  Free Interview Clearing Workshops
-  Free Resume Preparation & Aptitude Workshops



## Students at Placement Workshop:



# Data Science and Python

## Introduction to Data Science

- Understanding Data Science
- The Data Science Life Cycle
- Understanding Artificial Intelligence (AI)
- Overview of Implementation of Artificial Intelligence
  - Machine Learning
  - Deep Learning
  - Artificial Neural Networks (ANN)
  - Natural Language Processing (NLP)
- How Python connected to Machine Learning
- Python as a tool for Machine Learning Implementation



# PYTHON

## Introduction to Python

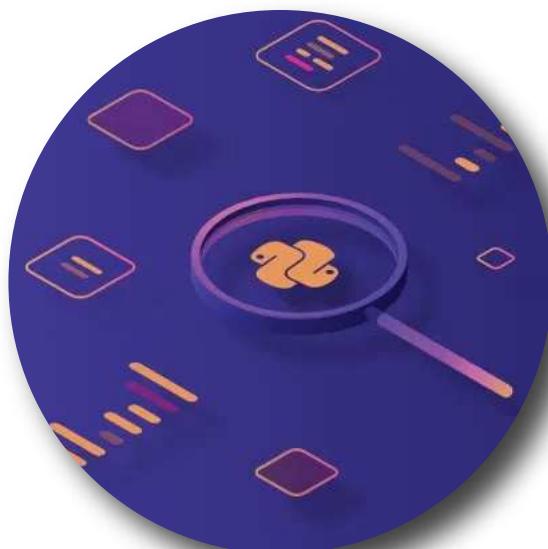
- What is Python and history of Python
- Python-2 and Python-3 differences
- Install Python and Environment Setup
- Python Identifiers, Keywords and Indentation
- Comments and document interlude in Python
- Command line arguments and Getting User Input
- Python Basic Data Types and Variables

## List, Ranges & Tuples in Python

- Understanding Lists in Python
- Understanding Iterators
- Generators, Comprehensions and Lambda Expressions
- Understanding and using Ranges

## Python Dictionaries and Sets

- Introduction to the section
- Python Dictionaries and More on Dictionaries
- Sets and Python Sets Examples



## Input and Output in Python

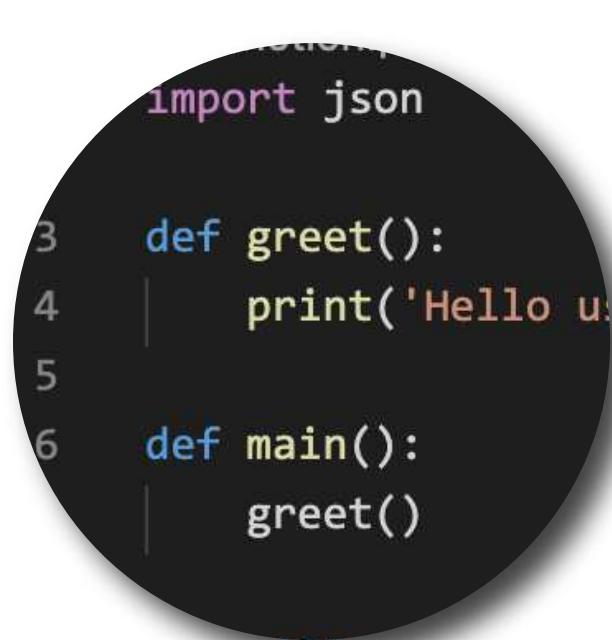
- Reading and writing text files
- Appending to Files
- Writing Binary Files Manually and using Pickle Module

## Python Functions

- Python user defined functions
- Python packages functions
- The anonymous Functions
- Loops and statement in Python
- Python Modules & Packages

## Useful additions

- Collections – named tuples, default dicts
- Debugging and breakpoints, Using IDEs



# Understanding Data: A Comprehensive Guide

## Introduction to Data Understanding

- Importance of Data Understanding
- Role in Decision Making
- Data as the Foundation of Analysis

## Types of Data

- Structured Data
  - Tabular Data
  - CSV (Comma-Separated Values) Files
  - Relational Databases
- Unstructured Data
  - Textual Data
  - Images
  - Audio and Speech Data
  - Video Data
- Semi-Structured Data
  - JSON (JavaScript Object Notation)
  - XML (eXtensible Markup Language)



## Exploring Tabular Data

- Understanding Rows and Columns
- Data Types and Formats
- Descriptive Statistics for Tabular Data

## CSV Files: Structure and Usage

- What is a CSV File?
- Advantages and Limitations of CSV
- Reading and Writing CSV Files in Programming

## Tools and Techniques for Data Understanding

- Data Visualization
- Charts and Graphs
- Heatmaps and Scatter Plots

## Challenges in Data Understanding

- Dealing with Missing Data
- Handling Noisy and Inconsistent Data



## Data Manipulation using Python

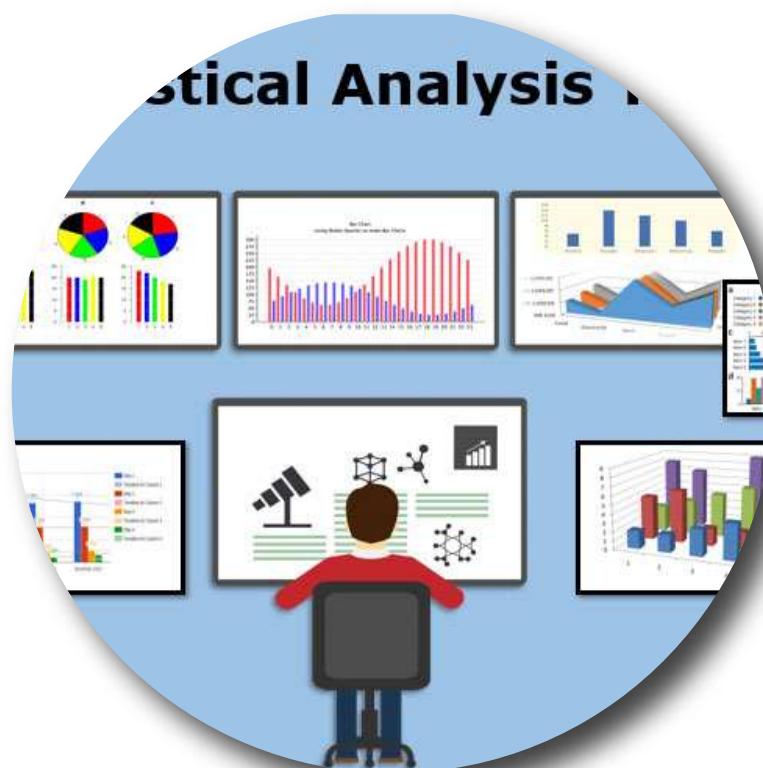
- Understanding different types of Data
- Understanding Data Extraction
- Managing Raw and Processed Data
- Wrangling Data using Python
  - Data Acquisition
  - Data Inspection
  - Data Cleaning
  - Data Transformation
  - Data Integration
  - Data Validation and Quality
  - Documentation and reporting
- Central Tendency
  - Mean
  - Mode
  - Median
- Dispersion of Data Point
  - Variance
  - Standard Deviation



- Probability Theory
  - Probability Density Function
  - Probability Mass Function
- Understanding Conditional Probability
- Exploratory Data Analysis (EDA)
- Working with Numpy, Scipy and Pandas,Scikit-learn

## Type of Statistics:

- Descriptive
  - MEAN
  - Mode
  - Median
  - Standard Deviation
  - Variation
  - Range
  - Frequency Tables



- Inferential

- Probability Theorem
- Distributions
- P-Value
- T-Test
- Chi-square
- ANOVA
- Null Hypothesis



## Data Pre-Processing:

- Understanding Data in Mathematical
- Making Data ready for Algorithms

## Python Packages & Libraries:

- Statsmodel
- Numpy
- Scipy
- Pandas
- Matplotlib
- Seaborn
- Beautiful Soup



## Data Exploration and Data Manipulation:

- Exploration:

- FITAAcademy**
- EDA
  - Variables
  - Univariate
  - Bivariate
  - Missing Value
  - Outlier
  - Transformation
  - Creation
- Manipulation:
    - Filter
    - Cleaning
    - Dataframes
    - Aggregating
    - Indexing
    - Slicing
    - Reshaping
    - Pivoting



# Machine Learning

## Understanding Machine Learning Models

- Understand what is a Machine Learning Model
- Various Machine Learning Models
- Choosing the Right Model
- Training and Evaluating the Model
- Improving the Performance of the Model

## More on Models

- Understanding Predictive Model
- Working with Linear Regression
- Working with Polynomial Regression
- Understanding Multi Level Models
- Selecting the Right Model or Model Selection
- Need for selecting the Right Model
- Understanding Algorithm Boosting
- Various Types of Algorithm Boosting
- Understanding Adaptive Boosting



## Understanding Machine Learning Algorithms

- Understanding the Machine Learning Algorithms
- Importance of Algorithms in Machine Learning
- Exploring different types of Machine Learning Algorithms
  - Supervised Learning
  - Unsupervised Learning
  - Reinforcement Learning

## Exploring Supervised Learning Algorithms

- Understanding the Supervised Learning Algorithm
- Understanding Classifications
- Working with different types of Classifications
- Learning and Implementing Classifications
  - Logistic Regression
  - Naïve Bayes Classifier
  - Nearest Neighbour
  - Support Vector Machines (SVM)
  - Decision Trees
  - Boosted Trees
  - Random Forest
- Time Series Analysis (TSA)
  - Understanding Time Series Analysis
  - Advantages of using TSA
  - Understanding various components of TSA
  - AR and MA Models
  - Understanding Stationarity
  - Implementing Forecasting using TSA



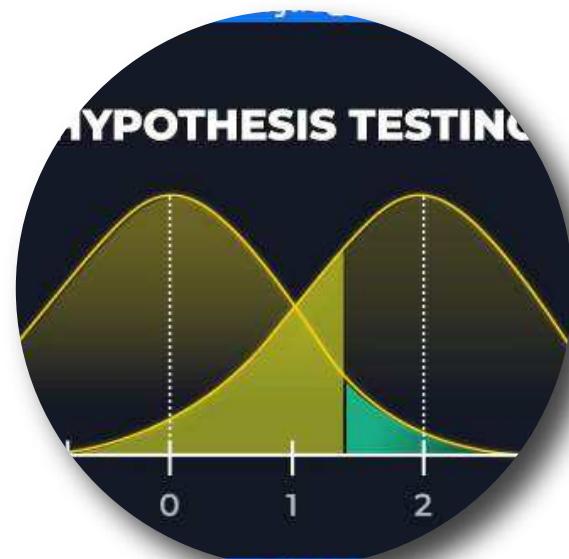
## Exploring Un-Supervised Learning Algorithms

- Understanding Unsupervised Learning
- Understanding Clustering and its uses
- Exploring K-means

- What is K-means Clustering
- How K-means Clustering Algorithm Works
- Implementing K-means Clustering
- Exploring Hierarchical Clustering
  - Understanding Hierarchical Clustering
  - Implementing Hierarchical Clustering
- Understanding Dimensionality Reduction
  - Importance of Dimensions
  - Purpose and advantages of Dimensionality Reduction
  - Understanding Principal Component Analysis (PCA)
  - Understanding Linear Discriminant Analysis (LDA)

## Understanding Hypothesis Testing

- What is Hypothesis Testing in Machine Learning
- Advantages of using Hypothesis Testing
- Basics of Hypothesis
  - Normalization
  - Standard Normalization
- Parameters of Hypothesis Testing
  - Null Hypothesis
  - Alternative Hypothesis
- The P-Value
- Types of Tests



- T Test
- Z Test
- ANOVA Test
- Chi-Square Test

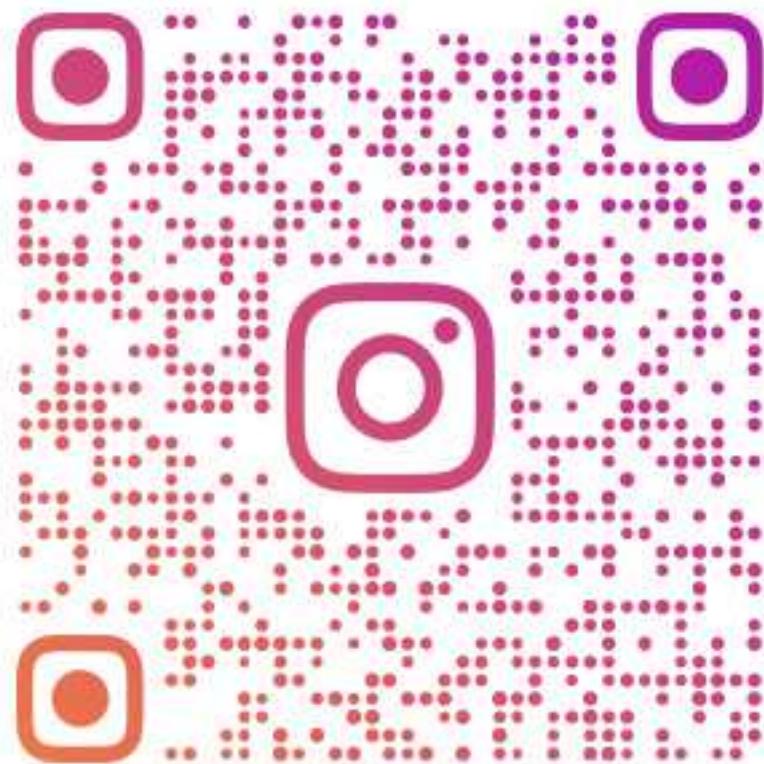
## Overview Reinforcement Learning Algorithm

- What is Hypothesis Testing in Machine Learning
- Advantages of using Hypothesis Testing
- Basics of Hypothesis

## Hands on Projects



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