

BE FUTURE  
READY

Fast Track Your  
**Data Science**

**Journey!**

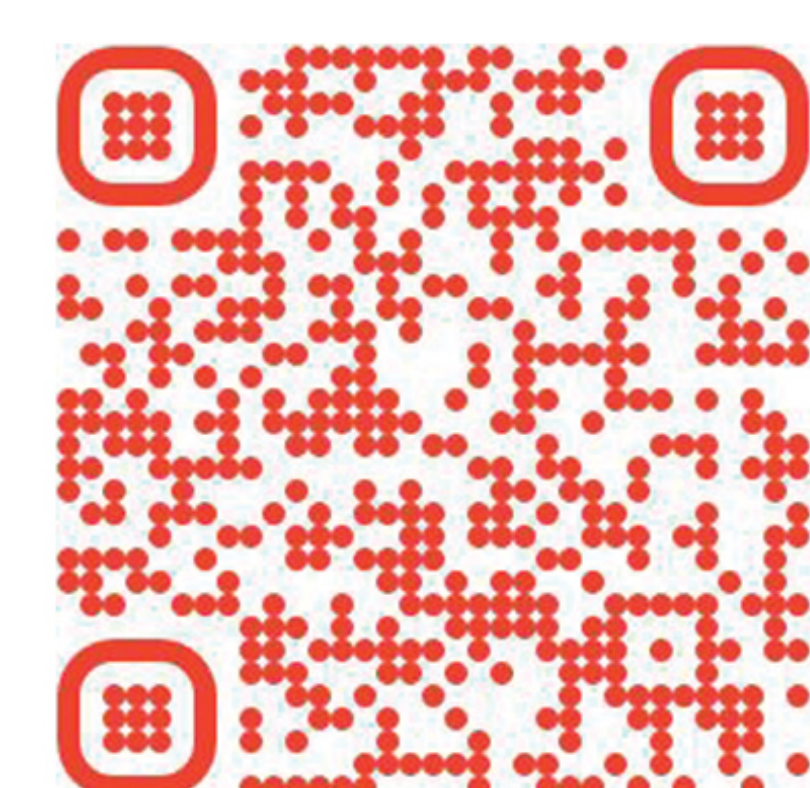
*Join Our*

**12 Week Immersive Bootcamp**

Register Here

Have Questions?

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# Data Science Bootcamp

Harness the Power of Data Science and Ignite Your Career With Our 12-Week Immersive Journey

## Week-1

### Intro to Data Science and Python

Overview of data science and its applications in businesses, Python programming for data science (data types, variables, loops, conditional statements, functions), Setting up Python development environment for data science projects with Jupyter notebook.

## Week-2

### Data Cleaning and Preprocessing

Intro to data manipulations libraries in Python for data science ecosystem, Numpy and Pandas for data cleaning and preprocessing, Data normalization & standardization. Regular expressions for data mining, Intro to web-scraping.

## Week-3

### Working with MySQL Databases Using Python

Intro to MySQL databases, Reading data for the project from MySQL databases using Python, Working with MySQL/Python Connector API, SQL essentials for Data Science.

## Week-4

### Data Analysis and Visualizations (Exploratory Data Analysis)

Business statistics, Summarizing data using descriptive statistics, Distributions & correlations, basic data visualizations using Matplotlib (line, scatter, histograms etc), Statistical data visualization using Seaborn, Customization and creating publication quality figures.

## Week-5

### Creation interactive dashboards using Python for reporting

Introduction to Dashboarding, Python for interactive plotting, geographical plotting, Creating interactive dashboard for reporting using Python.

## Week-6

### Machine Learning Fundamentals

Introduction to supervised & unsupervised machine learning, its importance and use cases, Overview of popular machine learning algorithms, Evaluation, validation and optimization techniques for machine learning models.

## Week-7

### Supervised Machine Learning

Linear regression and regularization techniques, classification algorithms (logistic regression, KNN, SVM, decision trees, random forests etc), Model evaluation, performance matrices and hyper-parameter tuning.

## Week-8

### Unsupervised Machine Learning

Clustering algorithms (k-means, k-medoids, hierarchical clustering, DBSCAN, OPTICS etc), Model evaluation, Principal component analysis, Anomaly and fraud detection techniques.

## Week-9

### Time Series Analysis

Time series data & its use cases, Working with time series data, Forecasting techniques (ARIMA, SERIMA, Exponential smoothing etc.), Seasonality and trend analysis. Forecasting with Facebook's Profit library, Advanced time series techniques.

## Week-10

### Deep Learning

Deep learning & its applications, Artificial neural networks, their components and types (Feedforward, Convolutional, Recurrent etc.), Building and training neural networks using Keras and TensorFlow. [Participants will be encouraged to explore other frameworks such as PyTorch]

## Week-11

### Natural Language Processing (NLP)

Importance of text data, Text preprocessing techniques (tokenization, stemming, lemmatization etc.), Feature extraction methods for text data, Bag or word model, TF-IDF, Embeddings, Building NLP models (sentiment analysis, text classification, NER).

## Week-12

### Capstone Project and Presentation

Real-world data project and application of skills learned throughout the program, Project display and presentation. [Corporate participants will be encouraged to work on their own data so that they can directly see the impact of training & make progress towards their day-to-day work]

## Key Features of The Offered Program:

- ✓ Daily lecture, hands-on practice, labs, and homework on real-life case studies
- ✓ Daily office hours to discuss the challenges and enhanced learning experience learning
- ✓ Access to self-study material for self-paced asynchronous learning
- ✓ Regular quizzes and assignments to track the progress of the participants
- ✓ Continuous mentoring, profile building, resume writing, interview preparation and job search strategies
- ✓ Real-life capstone project and [global] networking event for its presentation to increase the chances of successful entrepreneur journey for the interested participants

Questions and Queries Write Us at [info@dataskillz.com](mailto:info@dataskillz.com)