ROLASOFT PROFESSIONAL COMPUTER & IT COURSES VERSION 2.O LATEST

# Diploma in Certified Python for Data Science

*Become a job-ready Data Science in 6 months!*

# Benefits of Studying Diploma in Data Science Programming with RolaSoft

✅ **1. Industry-Relevant Curriculum**

Stay ahead with a syllabus designed by industry experts, focused on real-world applications of data science.

✅ **2. Hands-On Training**

Learn by doing — build real-time projects, develop applications, and gain practical coding experience.

✅ **3. Experienced Instructors**

Gain insights from certified professionals and senior software engineers with years of teaching and industry experience.

✅ **4. Placement Assistance**

Access job support services including resume building, mock interviews, and direct placement opportunities with partner companies.

✅ **5. Flexible Learning Modes**

Choose between: **Online**, **Offline (at our center)**, or **Hybrid Classes**

# Benefits of Studying Diploma in Data Science Programming with RolaSoft

✅ **6. Mini & Major Projects**

Work on individual and group projects to strengthen your portfolio and impress future employers.

✅ **7. Certification Upon Completion**

Earn a **Diploma Certificate** from **RolaSoft Technologies**, recognized by IT recruiters and employers.

✅ **8. Small Batch Size**

Personalized attention and better interaction in small groups for an enhanced learning experience.

✅ **9. Affordable Fees & Installment Plans**

Top-tier training at a reasonable cost, with flexible payment options.

✅ **10. Career-Oriented Skills You'll Gain at RolaSoft Technologies**

RolaSoft ensures you're job-ready with the right tech stack and practical knowledge.

# Diploma in Certified Python for Data Science Course Details

- ✅ **Duration**
  Six (6) Months

- ✅ **Schedule**
  Weekdays / Weekends

- ✅ **Learning Modes**
  Online, Offline (at our center), or Hybrid Classes

- ✅ **Start Date**
  New batches start every month — enroll now!

- ✅ **Eligibility**
  No prior experience required

# Certified Python for Data Science Language Prerequisites

- ✅ Basic knowledge of mathematics and logical reasoning
- ✅ Basic understanding of programming concepts (loops, functions, data structures)
- ✅ Familiarity with basic statistics and mathematics is a plus

# Certified Python for Data Science Language – Program Details

## Program Overview

The **Python for Data Science** course offered by ***Rolasoft Technologies*** is a comprehensive 6-month program that covers the essential concepts of **data science**, including **data cleaning**, **data manipulation**, **data visualization**, **statistical analysis**, and **machine learning** using Python.

By the end of the course, students will be able to use popular Python libraries such as **Pandas**, **NumPy**, **Matplotlib**, **Seaborn**, **SciPy**, and **Scikit-learn** to solve real-world data science problems. This hands-on course includes numerous projects to apply concepts and build a strong portfolio for a career in data science.

# Diploma in Certified Python for Data Science Course Curriculum

## Month 1: Introduction to Python & Data Science Basics

✅ Introduction to Data Science and the Data Science Workflow

✅ Introduction to Python and Setting Up the Development Environment

✅ Python Syntax: Variables, Data Types, Control Structures

✅ Functions, Loops, and Conditionals in Python

✅ Introduction to **NumPy** for Scientific Computing
(Arrays, Indexing, and Slicing, Linear Algebra with NumPy, Matrix Operations)

# Diploma in Certified Python for Data Science Course Curriculum

✅ Introduction to **Pandas** for Data Manipulation
(DataFrames, Series, Indexing, and Selection, Data Importing and Exporting, Handling Missing Data)

✅ Introduction to **Matplotlib** and **Seaborn** for Data Visualization

✅ **Project**: Simple Data Exploration and Visualization

# Diploma in Certified Python for Data Science Course Curriculum

## Month 2: Data Cleaning & Exploration

✅ Data Cleaning Techniques with **Pandas**
(Handling Missing Values, Removing Duplicates, Handling Outliers)

✅ Exploratory Data Analysis (EDA)
(Statistical Descriptive Analysis, Visualizing Distributions and Relationships, Correlation Analysis)

✅ Data Aggregation and Grouping in Pandas

✅ Data Wrangling and Feature Engineering

✅ **Project**: Cleaning and Analyzing a Real Dataset (e.g., Sales Data, Customer Data)

# Diploma in Certified Python for Data Science Course Curriculum

## Month 3: Statistical Analysis & Hypothesis Testing

✅ Introduction to Statistical Concepts for Data Science
(Mean, Median, Mode, Variance, Standard Deviation, Probability Distributions, Sampling Methods and Central Limit Theorem)

✅ Hypothesis Testing:
(Null and Alternative Hypotheses, t-Tests, Chi-Square Test, ANOVA, Confidence Intervals)

✅ Correlation vs Causation

✅ Regression Analysis:
(Simple Linear Regression, Multiple Linear Regression, Evaluating Regression Models)

✅ **Project**: Statistical Analysis and Hypothesis Testing with a Dataset

# Diploma in Certified Python for Data Science Course Curriculum

## Month 4: Introduction to Machine Learning

✅ Introduction to **Machine Learning**
(Types of Machine Learning: Supervised, Unsupervised, Reinforcement Learning, Overfitting vs Underfitting, Cross-validation and Model Evaluation Metrics (Accuracy, Precision, Recall, F1 Score))
✅ Introduction to **Scikit-learn**

✅ Supervised Learning Algorithms:
(Linear Regression, Logistic Regression, K-Nearest Neighbors (KNN), Decision Trees and Random Forests)

✅ Unsupervised Learning Algorithms:
(K-Means Clustering, Principal Component Analysis (PCA))

✅ **Project**: Build and Evaluate a Supervised Learning Model

# Diploma in Certified Python for Data Science Course Curriculum

## Month 5: Advanced Machine Learning & Deep Learning Basics

✅ Model Optimization and Tuning:
(Hyperparameter Tuning, Grid Search and Randomized Search)

✅ Introduction to Ensemble Learning:
(Random Forest, Gradient Boosting, AdaBoost, XGBoost and LightGBM)

✅ Introduction to **Deep Learning**
(Neural Networks: Basic Concepts, Overview of TensorFlow and Keras, Building a Basic Neural Network)

✅ Image Classification with Deep Learning (Introduction to CNNs)

✅ **Project**: Build a Model Using Ensemble Learning or Deep Learning

# Diploma in Certified Python for Data Science Course Curriculum

## Month 6: Data Science Project & Deployment

✅ Model Deployment Strategies
(Exporting Models with Pickle, Building a Simple Web Application with Flask)

✅ Introduction to **Cloud Computing** for Data Science (AWS, GCP, or Azure)

✅ Creating a Data Science Portfolio

✅ End-to-End Data Science Project:
(Problem Definition, Data Collection and Cleaning, Model Building and Evaluation, Deployment and Monitoring)

✅ **Final Capstone Project**: Solve a Real-World Problem with Data Science (e.g., Predictive Modeling, Classification)

# Tools & Technologies Used

Tools & Technologies Used for **Certified Python for Data Science** Course are:

- ✅ **Python** and **Jupyter Notebooks**
- ✅ **NumPy** for Numerical Computing
- ✅ **Pandas** for Data Manipulation and Analysis
- ✅ **Matplotlib** and **Seaborn** for Data Visualization
- ✅ **Scikit-learn** for Machine Learning Algorithms
- ✅ **TensorFlow** and **Keras** for Deep Learning
- ✅ **Flask** for Web Application Deployment
- ✅ **AWS**, **GCP**, or **Azure** for Cloud Services

# Final Capstone Project (End of 6 Months)

Students will complete an **industry-level project** in **Certified Python for Data Science** :

✅ Final Capstone Project: Solve a Real-World Problem with Data Science (e.g., Predictive Modeling, Classification)

# Certified Python for Data Science Learning Outcomes

By the end of this course, students will be able to:

✅ Be proficient in using **Python** for data analysis and machine learning

✅ Understand the data science workflow from data collection to model deployment

✅ Have hands-on experience with popular **data science libraries** like **NumPy**, **Pandas**, **Matplotlib**, and **Scikit-learn**

✅ Understand and implement various **machine learning algorithms** for classification, regression, and clustering

✅ Be able to clean, analyze, and visualize real-world datasets

✅ Have the skills to deploy machine learning models and create data science applications

✅ Build and showcase a **portfolio of data science projects**

# Certification Obtain

After completion of the program, the student will be awarded with a certificate:

## Diploma in Certified Python for Data Science

The program also prepares students for industry certifications such as:

- ✅ IBM Data Science Professional Certificate (Coursera)
- ✅ Google Advanced Data Analytics Certificate (Coursera)
- ✅ DataCamp Certifications (Data Scientist/Analyst in Python)
- ✅ Certified Data Scientist – DASCA (Data Science Council of America)
- ✅ Harvard's Data Science Professional Certificate (edX)
- ✅ Python Institute Certifications (PCAP / PCPP)

# Certified Python for Data Science Career Opportunities

- ✅ Data Analyst
- ✅ Junior Data Scientist
- ✅ Business Intelligence (BI) Analyst
- ✅ Data Scientist
- ✅ Machine Learning Engineer
- ✅ Data Engineer
- ✅ Product Analyst / Marketing Analyst
- ✅ AI/ML Researcher

# Who Should Take This **Certified Python for Data Science ?**

## Who Should Take This **Certified Python for Data Science?**

✅ Individuals with a basic understanding of programming who want to learn data science

✅ Students and professionals looking to transition into data science and analytics

✅ Data analysts and engineers who want to enhance their skills in Python

✅ Researchers or business professionals interested in working with data

✅ Anyone looking to enter the world of machine learning and artificial intelligence

# Rolasoft Technologies Services

## Rolasoft Technologies – Services Offered

✅ **SOFTWARE DEVELOPMENT COMPANY**
(MOBILE APPLICATION, WEB APPLICATION, DESKTOP APPLICATION, CUSTOMIZED APPLICATION, E-COMMERCE WEBSITE)

✅ **PROFESSIONAL COMPUTER AND IT EDUCATION**
(TOP-UP PROGRAMS, DIPLOMA PROGRAMS, CERTIFICATE PROGRAMS, TECH @ SCHOOL, CORPORATE PROGRAMS, SIWES PROGRAMS, CUSTOMIZED PROGRAMS)

✅ **DIGITAL ADVERTISING AND BUSINESS BRANDING**
(SOCIAL MEDIA MARKETING, EMAIL MARKETING, CONTENT MARKETING, WEBSITE SEO, BRANDED CLOTHING, STICKERS AND TAG, CUSTOM BRANDING, AND MANY MORE)

✅ **INTERNATIONAL UNIVERSITY ADMISSION PROCESSING**
(AMERICA, UK, CANADA, EUROPE, AFRICA, AND MANY MORE)

# Contact & Registration

 Phone: +234 8032867212, +234 8082171242

 Email: info@rolasofttech.com

 Website: www.rolasofttech.com

 Address: 2, Martins Street Off Ojuelegba Road, Yaba, Lagos State.

**Enroll Today & Start Your Data Science Journey!**

*Shape your future with Python for Data Science.*