



# QUILLANCE INFOTECH PVT LTD.

## Data Science

The Quillance Data Science Program is a complete beginner-to-advanced training program designed to help learners master data analysis, machine learning, artificial intelligence, predictive modeling, big data concepts, and data-driven decision-making used by modern companies and technology industries worldwide.



# Program Overview

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## What You Will Learn

- Understand data science and AI fundamentals
- Learn Python, SQL, data visualization, and analytics tools
- Build machine learning and predictive models
- Analyze large datasets and generate insights
- Work with real-world business and AI case studies
- Understand data-driven decision-making and automation workflows

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## Career Opportunities

After completing this program, learners can apply for roles such as:

- Data Scientist
- Machine Learning Engineer
- Data Analyst
- AI & Analytics Associate
- Business Intelligence Analyst
- Data Science Intern

# Live Projects You'll Build

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- **Project 1 – Sales & Business Analytics Dashboard**

Analyze business performance and visualize KPIs using dashboards.

- **Project 2 – Customer Behavior Analysis**

Study customer trends, purchasing behavior, and engagement patterns.

- **Project 3 – Predictive Sales Forecasting Model**

Build machine learning models to predict business growth and revenue trends.

- **Project 4 – Recommendation System Project**

Develop recommendation systems similar to e-commerce and streaming platforms.

- **Project 5 – AI-Powered Chatbot & NLP Application**

Create intelligent chatbot systems using Natural Language Processing concepts.

- **Project 6 – End-to-End Data Science Capstone**

Work on complete data science pipelines including data collection, cleaning, modeling, deployment, and reporting.

## MODULE 1

# Data Science Fundamentals

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### TOPICS COVERED:

- Introduction to Data Science & AI
- Types of Data & Analytics
- Data Collection & Cleaning Basics
- Business Metrics & KPI Fundamentals
- Introduction to Excel & Data Handling
- Data Reporting & Communication Basics

### SKILLS GAINED:

- Data Science Fundamentals
- Data Understanding Skills
- Reporting Basics
- Analytical Thinking Skills

### PRACTICAL LEARNING:

- Understand data science workflows
- Work with business datasets
- Create basic reports and summaries
- Learn data interpretation fundamentals

## MODULE 2

# Python, SQL & Data Analysis

### TOPICS COVERED:

- Python Fundamentals for Data Science
- NumPy & Pandas Basics
- SQL Fundamentals & Database Concepts
- Data Querying & Filtering Techniques
- Data Cleaning & Transformation Methods
- Exploratory Data Analysis (EDA)

### SKILLS GAINED:

- Python Programming Skills
- SQL Query Knowledge
- Data Analysis Workflow Understanding
- Database Management Skills

### PRACTICAL LEARNING:

- Analyze datasets using Python
- Write SQL queries for data analysis
- Clean and transform raw data
- Perform exploratory data analysis

## MODULE 3

# Data Visualization & Business Intelligence

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### TOPICS COVERED:

- Introduction to Power BI
- Dashboard Development Fundamentals
- Interactive Reports & Charts
- KPI Tracking & Performance Analysis
- Data Visualization Best Practices
- Business Intelligence Workflow

### SKILLS GAINED:

- Dashboard Development Skills
- Data Visualization Knowledge
- Business Intelligence Understanding
- Reporting & Presentation Skills

### PRACTICAL LEARNING:

- Build interactive dashboards
- Visualize business data effectively
- Track KPIs and performance metrics
- Present insights professionally

## Module 4

# Machine Learning Fundamentals

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### TOPICS COVERED:

- Introduction to Machine Learning
- Supervised & Unsupervised Learning
- Regression & Classification Algorithms
- Model Training & Evaluation
- Feature Engineering Basics
- Predictive Analytics & Forecasting

### PRACTICAL LEARNING:

- Build machine learning models
- Train and evaluate datasets
- Predict business trends and outcomes
- Understand AI model workflows

### SKILLS GAINED:

- Machine Learning Knowledge
- Predictive Modeling Skills
- AI Workflow Understanding
- Data-Driven Decision-Making Skills

# Advanced Data Science & AI Applications

## TOPICS COVERED:

- Deep Learning Fundamentals
- Neural Networks & AI Basics
- Natural Language Processing (NLP)
- Recommendation Systems
- Model Deployment & Automation Basics
- AI Ethics & Responsible AI Concepts

## PRACTICAL LEARNING:

- Build AI-powered applications
- Analyze text and language datasets
- Explore recommendation systems
- Understand AI deployment workflows

## ADVANCED CONCEPTS INCLUDED:

- AI-Powered Automation
- Intelligent Data Systems
- NLP & Text Analytics
- Advanced Predictive Analytics
- AI Model Optimization
- Real-World AI Applications

## SKILLS GAINED:

- Advanced AI Knowledge
- NLP & Deep Learning Understanding
- AI Application Development Skills
- Model Optimization Techniques

# Live Data Science Project & Team Collaboration

## TOPICS COVERED:

- Business Case Study Analysis
- Data Pipeline & Workflow Development
- Machine Learning Project Implementation
- Data Interpretation & Presentation
- Team Collaboration & Reporting
- Final Data Science Project Presentation

## SKILLS GAINED:

- Real-World Data Science Experience
- Team Collaboration Skills
- AI Project Presentation Skills
- Business Analytics Understanding

## PRACTICAL LEARNING:

- Work on data science case studies
- Build machine learning workflows
- Present AI and analytics insights professionally
- Collaborate in project teams

## Module 7

# Placement & Career Preparation

### TOPICS COVERED:

- Resume Building & ATS Optimization
- LinkedIn & Professional Branding
- Data Science Interview Preparation
- Python, SQL & ML Practice Sessions
- Mock Interviews & HR Preparation
- Career Guidance & Professional Development

### SKILLS GAINED:

Students will be prepared for internships, data science roles, machine learning opportunities, and AI-focused careers.

### CAREER SUPPORT INCLUDES:

- Resume & LinkedIn Reviews
- Mock Technical Interviews
- Internship & Placement Assistance
- GitHub & Portfolio Guidance
- Career Mentorship Sessions
- Professional Communication Training



**QUILLANCE  
INFOTECH PVT LTD.**

# Thank You!!

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