

upGrad

Graduate Certificate Program

in Data Science & AI powered by upGrad



Now integrated with

Generative AI

“The world is one big data problem.”
— by Andrew McAfee



LEARNING PATH



Course 1

Python for Data Science
(11 weeks)



Course 2

SQL & UI Tools for Data Science
(10 weeks)



Course 3

Statics and Machine Learning
(8 weeks)

PROGRAM CURRICULUM

Course	Week	Module / Content
Python for Data Science	Week 1	Introduction to Generative AI + Python
	Week 2	Programming in Python - I
	Week 3	Programming in Python - II
	Week 4	Generative AI - Fundamentals of Large Language Models (LLMs) and Prompt Engineering
	Week 5	Python Libraries for Data Manipulation
	Week 6	Python libraries for Visualisation
	Week 7	Data Collection Cleaning Pre processing
	Week 8	Univariate, Bivariate and Multivariate Analysis
	Week 9	Course Project - Credit Risk Analyzer + Python Lab
	Week 10	Buffer 1
SQL & UI Tools for Data Science	Week 11	Basics of SQL - I
	Week 12	Basics of SQL - II
	Week 13	Advanced SQL - I
	Week 14	Advanced SQL - II
	Week 15	GenerativeAI - Advanced Prompting and Data Analysis automation
	Week 16	Plotting and Dashboarding in Tableau
	Week 17	Advanced Visualisation using Tableau + Storytelling - I +Python/SQL Integration

Course	Week	Module / Content
Statics and Machine Learning (7 Weeks)	Week 18	Visualization using PowerBI
	Week 19	Course Project - TopProductDetect + SQL Lab
	Week 20	Buffer
	Week 21	Basics of Probability, Probability Distributions, Sampling Distributions and Confidence Intervals
	Week 22	Hypothesis Testing
	Week 23	Introduction to ML
	Week 24	Introduction to Classification and Logistic Regression
	Week 25	Introduction to Clustering, K-Means
	Week 26	Generative AI Crash Course Finetuning LLMs, ML tasks automation using PyCaret and GPT Embeddings
	Week 27	Course Project - GenerativeAI Hackathon
	Week 28	Capstone Project
	Week 29	Capstone Project