Non-Tech

Data Analyst

Roadmap

Building Profile & Portfolio Projects

This roadmap contains 8 Chapters that can be completed in 8 weeks, whether you are a fresher in the field or an experienced professional who wants to transition into Data Analysis.


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This is how we are going to prepare for the Non-Tech Data Analyst profile:

1 - Python Programming

2 - Understanding NumPy

3 - Exploratory Data Analysis (EDA) with Pandas

4 - Data Visualization with Matplotlib and Seaborn

5 - Excel - Data Manipulation and Analysis

6 - Statistics and Statistical models

7 - Working with Different Types of Datasets

8 - Structured Query Language (SQL)

9 - Data Storytelling with Tableau or PowerBI

10 - Business Acumen and working with Business Problems

11 - Machine Learning Basics & Predictive Analytics

12 - Time Series Analysis & Forecasting

13 - Business Case Studies & Analysis

You have to choose the domain that you are currently working in and integrate the data analytics knowledge into it so that you will be a domain expert, as well as your previous years of experience, will be in use.

We will need 8 Weeks to complete each topic and be ready for the job interview.

Week 1

Chapter 1 - Python Programming & Logic Building

1 | Python Programming

0 | Learn the Basics here: https://youtube.com/playlist?list=PLMk98arLoBfq2B6_EJb3dG2wAXQtd4dSN

1 | While Loops, Lists, Strings

2 | For Loop, Dictionary, Tuples, Set

3 | Functions

4 | Modules, Packages, and PIP

5 | Virtual Environment, Flask, and Python Web Scrapping

Week 2

Chapter 2 - Data Analysis with Python

2 | Understanding NumPy

NumPy basics

Working with Matrix

Linear Algebra operations

Descriptive Statistics

Normal Distribution Operations

Mean, Variance, and Standard Deviation

Reshaping arrays

3 | Exploratory Data Analysis (EDA) with Pandas

Pandas

Data Analysis basics

Dataframe operations

Working with 2-dimensional data

Data Cleaning

Data Grouping

Working with Datasets

4 | Data Visualization with Matplotlib and Seaborn - Projects

Matplotlib

Plot Basics

Format Strings

Label and Legends

Bar Chart

Pie Chart

Week 3

Chapter 3 - Statistical Analysis and Data Analytics Projects

5 | Statistics and Statistical Models

Descriptive Statistics

- Measure of Frequency and Central Tendency
- Measure of Dispersion
- Probability Distribution
- Gaussian Normal Distribution
- Skewness and Kurtosis
- Regression Analysis
- Continuous and Discrete Functions
- Goodness of Fit
- ANOVA

Inferential Statistics

- t-Test
- z-Test
- Hypothesis Testing
- Type I and Type II errors
- t-Test and its types
- One way ANOVA
- Two way ANOVA
- Chi-Square Test
- Implementation of continuous and categorical data

6 | Working with Different Types of Datasets - Projects

Week 4

Chapter 4 - Database Management with SQL

7 | SQL - Structured Query Language - Project

Roadmap

1 | Fundamentals to SQL and Installation

2 | Creating Tables - modifiers, altering table

3 | Retrieving Data - SELECT

4 | Aggregating Data using Functions

5 | Subqueries - retrieving data with conditions

6 | JOINS

Project

Week 5

Chapter 5 - Data Storytelling

8 | Data Storytelling with Tableau or PowerBI - Projects

Week 6

Chapter 6 - Business Problems

9 | Business Acumen - Working with Business Problems

Week 7

Chapter 7 - Predictive Analytics

10 | Machine Learning - Basics & Predictive Analytics

Machine Learning

Linear Regression

Logistic Regression

Projects for Building ML Model

Week 8

Chapter 8 - Forecasting & Case Studies

11 | Time Series Analysis & Forecasting

12 | Business Case Studies & Analysis

What to do Next?

Resources & Projects

Data Analyst Interview

Projects

Join the Community WhatsApp Group:

https://chat.whatsapp.com/J0CjC1tNsPpAk0S7OZDtbp

Join Telegram:

https://t.me/+sREuRiFssMo4YWJl

Are you interested in these topics:

Python🐍 Machine Learning🤖 Data Science🥼

Data Engineering👩‍💻 Computer Vision🖥️

NLP🤍 Business Problems🚀

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