🚀 Data Science Basics & Project Guide

🧠 Objective

This repository is a curated path for mastering **Data Science with Python**, focusing on **statistics, Excel, Python libraries, and real-world projects**. It emphasises practical learning through coding, visualisation, and analysis—ideal for personal development and project portfolios.

🗂️ Table of Contents

🐍 Python for Data Analysis

- FreeCodeCamp – Data Analysis with Python
- W3Schools – Python Basics
- DataQuest – Data Analyst Path
- Replit – 100 Days of Python

- Pybites – Python Practice
- Libraries to Master:
    - **Pandas** – Data manipulation
    - **Numpy** – Numerical computing
    - **Matplotlib/Seaborn** – Visualization

📊 Excel for Analysts

- Master functions like `VLOOKUP`, `INDEX/MATCH`, Pivot Tables, Data Cleaning.
- GeeksforGeeks Excel Qs
- Practice data manipulation with CSVs and Excel Dashboards.

📈 Statistics & Data Inference

- Khan Academy – Statistics & Probability
- StatQuest – Intuitive Video Explanations
- Johns Hopkins Statistical Inference (Coursera)

💼 Project-Based Learning

- 50 Projects for Data Analysis
- Kaggle – Hands-on Projects
- Sample Project Ideas:

    - COVID-19 Trend Analysis
    - Addressing the Unaddressed – Open Location Code
    - Climate Data Visualization – Pyclm101

🤖 Machine Learning & AI

- Andrew Ng's ML Course (Coursera)
- Fast.ai – Practical Deep Learning
- ML4A – Machine Learning for Artists
- Elements of AI
- 3Blue1Brown – Neural Network Animations