Data Scientist & Data Analyst Roadmap with Learning Platforms and YouTube Channels

Stage 1: Foundation (Python + Math + Stats)

Learning Platforms:

- Kaggle Learn – Short, practical mini-courses (free)
- Coursera – IBM Data Science / Google Data Analytics
- FreeCodeCamp – Full Python + Statistics course
- DataCamp – Hands-on coding exercises

YouTube Channels:

- Code with Harry – Python & SQL basics
- CampusX – Data Science & Machine Learning explained simply
- Krish Naik – Python, ML, real projects
- StatQuest with Josh Starmer – Statistics & ML concepts
- Simplilearn / Great Learning – Topic-wise tutorials

Stage 2: Data Analysis & Visualization

Learning Platforms:

- Kaggle Learn: Pandas, Data Visualization, EDA
- Udemy – 'Python for Data Science and Machine Learning Bootcamp' by Jose Portilla
- Coursera – Data Analysis with Python (IBM)

YouTube Channels:

- Alex The Analyst – Complete Data Analyst roadmap + projects
- Luke Barousse – Real-world Pandas & SQL projects
- Ken Jee – Career advice + project breakdowns
- Data School – Pandas & Scikit-learn tutorials

Stage 3: Database & Data Management (SQL + Excel)

Learning Platforms:

- Mode SQL Tutorial
- LeetCode SQL practice problems
- Coursera – SQL for Data Science (UC Davis)
- Excel Skills for Business (Coursera)

YouTube Channels:

- TechTFQ – SQL practical tutorials
- CodeWithHarry / BroCode – MySQL tutorials

- ExcelIsFun – Excel analytics
- Leila Gharani – Excel dashboards

Stage 4: Machine Learning

Learning Platforms:

- Coursera – Andrew Ng's Machine Learning
- Kaggle Learn – ML, Feature Engineering, Model Tuning
- Google's Machine Learning Crash Course

YouTube Channels:

- Krish Naik – ML projects & deployment
- CampusX – Hands-on ML
- StatQuest – Visual ML explanations
- Codebasics – ML business use-cases

Stage 5: Advanced Tools (Power BI, Tableau, Cloud, GitHub)

Learning Platforms:

- Microsoft Learn – Power BI
- Tableau Public Learning
- GitHub Skills – Version control
- Google Cloud Skills Boost / AWS Skill Builder

YouTube Channels:

- Guy in a Cube – Power BI insights
- Data Simplified – Tableau tutorials
- Amigoscode – Git & GitHub
- TechTFQ / Simplilearn – Power BI projects

Stage 6: Portfolio & Career Building

Learning Platforms:

- Kaggle Competitions – Real challenges
- LinkedIn Learning – Data Visualization & Storytelling
- Analytics Vidhya / Towards Data Science – Blogs

YouTube Channels:

- Ken Jee – Resume & portfolio strategy
- Alex The Analyst – Portfolio tips
- Luke Barousse – Recruiter-attracting projects

Bonus Free Platforms

Resources:

- HackerRank – Python + SQL practice
- Kaggle – Datasets + notebooks
- Reddit /r/datascience – Community
- Analytics Vidhya – Hackathons & job prep