

# ■ Data Science Roadmap 2025 (1-Year Plan)

This roadmap is designed to help you become a Data Scientist in 1 year (2025) using only free resources and YouTube links. The plan assumes you spend 10–15 hours per week and have no strong prior background. Follow it month by month, do projects early, and maintain a portfolio.

Months	Focus Areas	Free Resources
1-2	Foundations: Python, Math Basics, Stats	<ul style="list-style-type: none"><li>• Coursera: Python for Applied Data Science AI</li><li>• Kaggle Learn: Python Basics</li><li>• CognitiveClass.ai: Python for Data Science</li><li>• YouTube: Data Science Roadmap 2025 (ktGQF-fwjPk)</li></ul>
3-4	Data Wrangling, EDA, Visualization, SQL	<ul style="list-style-type: none"><li>• Kaggle Learn: Pandas, Visualization</li><li>• FreeCodeCamp: Data Analysis with Python</li><li>• Great Learning Academy: Data Science with Python</li><li>• YouTube: Roadmap with Free YouTube Tutorials 2025</li></ul>
5-6	Stats Thinking & ML Fundamentals	<ul style="list-style-type: none"><li>• Hypothesis Testing, Regression, Classification</li><li>• Coursera (Andrew Ng ML - audit free)</li><li>• Kaggle Learn: Intro to ML</li></ul>
7-8	Advanced ML + Special Topics	<ul style="list-style-type: none"><li>• Decision Trees, Random Forest, XGBoost</li><li>• Unsupervised Learning: K-Means, PCA</li><li>• Kaggle Learn Advanced ML</li></ul>
9-10	Projects, Tools & Deployment	<ul style="list-style-type: none"><li>• Build end-to-end projects</li><li>• Learn Git &amp; GitHub</li><li>• Model deployment with Streamlit / Flask</li><li>• Kaggle Competitions</li></ul>
11-12	Specialisation + Job Prep	<ul style="list-style-type: none"><li>• Choose NLP, CV, or Time Series</li><li>• Portfolio: 2–3 polished projects</li><li>• Interview Prep (LeetCode, HackerRank)</li><li>• YouTube: Roadmap to Become a DS 2025 (Q4JK8e-0nGE)</li></ul>

## Tips for Success:

- Stay consistent – study 10-15 hrs/week.
- Focus on practice & projects, not just theory.
- Publish work on GitHub & Kaggle.
- Join communities for networking.
- Practice explaining insights visually & clearly.