

1. Python Programming (Foundation)

- freeCodeCamp Python Full Course for Beginners (YouTube) 4.5 hrs, super beginner-friendly
- Automate the Boring Stuff with Python (free book + videos) Learn practical Python scripting

2. Machine Learning Basics

- freeCodeCamp Machine Learning with Python (YouTube) Covers ML concepts and simple models
- Kaggle Intro to Machine Learning Course Hands-on exercises with real data

3. Deep Learning / Neural Networks

- DeepLearning.ai Neural Networks and Deep Learning (Coursera) Foundational DL course
- PythonEngineer YouTube Channel Practical DL tutorials using PyTorch and TensorFlow
- fast.ai Practical Deep Learning for Coders (free course) Highly applied deep learning course

4. Tools & Platforms

- Google Colab (free GPU cloud notebooks): colab.research.google.com
- Jupyter Notebooks (local interactive coding)
- Anaconda Python distribution for managing packages: anaconda.com
- VSCode for coding: code.visualstudio.com
- GitHub for portfolio: github.com

5. Project Ideas & Practice

- Kaggle Competitions Great real-world challenges
- ◆ 100 Days of ML Coding Challenge