

PYTHON ROADMAP FOR 2022

LEARN PYTHON FROM
SCRATCH



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WHY PYTHON?



Python is a multi-purpose language.

You can use Python to build web apps, mobile apps, and desktop apps as well as software testing, data analysis and visualisation, Artificial intelligence, and Machine Learning can also be done by using Python.



THE ROADMAP (GAME PLAN)



1

LEARN SYNTAX AND BASICS

- ✓ The Python shell, basic arithmetic.
- ✓ Control Structures.
- ✓ Accepting user input, strings & Typecasting.
- ✓ Looping in Python: For & While loops.
- ✓ Exceptional handling
- ✓ Functions, modules & Imports.



2

OOPS CONCEPTS, BUILT-IN DATA STRUCTURES, AND OTHER STUFF

- ✓ OOP in Python.
- ✓ Lists & List Functions.
- ✓ Regular Expressions.
- ✓ List Comprehension.
- ✓ List Slicing.
- ✓ String Formatting.
- ✓ Lambdas
- ✓ List, Dictionaries & Tuples



3

FRAMEWORK FOR WEB DEV

We have so many frameworks for web dev in python like Django, Flask, Bottle, Tornado & Pyramid.

Django

A high-level web framework mostly used in startups and enterprises for web development, if you are a complete beginner then it will take some time to learn Django.



3

FRAMEWORK FOR WEB DEV

Flask

Flask is one of the easiest microframeworks to learn in Python. If you wish to develop a simple and lightweight web application then Flask is suitable for that.

Bottle

The Bottle framework is a fast, lightweight Python web framework that makes building REST API.





FOR BUILDING DESKTOP APPS

Tkinter, PyQt, Kivy, WxPython, or PyGUI libraries are very good for building desktop-based applications.

Tkinter

Tkinter is open source library and it allows you to build desktop GUI applications using Python.

PyQt

PyQt is one of the most powerful cross-platform GUI library owned by Nokia.



5 FOR DATA ANALYSIS

Numpy, Pandas, Seaborn, Bokeh, SciPy, Matplotlib. These libraries are good for Data Analysis.

Numpy

It is an array-processing package and provides high-performance array objects.

Pandas

Pandas is also a very good open-source library that is used for Data Analysis. It provides high-level data structures (such as DataFrame) for analysis.





FOR MACHINE LEARNING

TensorFlow

The most popular deep learning library developed by Google uses a computational framework.

Scikit-Learn

A machine learning library for Python, designed to work with numerical libraries such as SciPy & NumPy.

PyTorch

It can handle dynamic computation graphs on the go.



BONUS TIPS



REMEMBER:



Have Patience.



Stick with your goal and language.



Be Consistent



Build Projects



Frustration and pain is part of the learning process. Embrace it, instead of avoiding it.



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FOR FUTURE REFERENCE



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