

■ Python Roadmap 2026

A Complete Beginner-to-Advanced Career Roadmap

1. Python Foundation (Beginner Level)

- What is Python & why Python in 2026
- Installing Python, VS Code, Jupyter Notebook
- Syntax basics, variables, data types
- Operators, conditions, loops
- Functions, input/output
- Mini Projects: Calculator, Number Guessing Game, To-Do App

2. Core Python (Intermediate Level)

- Lists, Tuples, Sets, Dictionaries
- Comprehensions & lambda functions
- Modules, packages, file handling
- Exception handling
- Object-Oriented Programming (OOP)
- Virtual environments & PEP8
- Mini Projects: Bank System, Contact Manager, File Analyzer

3. Advanced Python

- Decorators & generators
- Iterators & context managers
- Multithreading & multiprocessing
- Async & await
- Testing, debugging, logging
- Performance optimization
- Projects: Web Scraper, Async API Client

4. Data Handling & Databases

- NumPy & Pandas
- Data cleaning & preprocessing
- SQL with Python
- NoSQL basics (MongoDB)
- ORM with SQLAlchemy
- Projects: Data Analysis Dashboard

5. Career Tracks with Python

- Data Analyst – Pandas, SQL, Power BI
- Data Scientist – ML, Statistics, Scikit-learn
- AI Engineer – Deep Learning, NLP, Computer Vision
- Backend Developer – FastAPI, Django
- Automation Engineer – Scraping, Bots

6. DevOps, Cloud & Deployment

- Git & GitHub
- Docker basics
- CI/CD pipelines
- Cloud fundamentals (AWS/GCP/Azure)
- Deploying Python applications

7. Interview & Job Preparation

- Python DSA
- Common interview questions
- System design basics
- Resume & GitHub portfolio
- Freelancing & remote jobs

8. Project-Based Learning

- Beginner Projects (5)
- Intermediate Projects (5)
- Advanced Projects (5)
- Capstone Project (Industry-grade)

9. Python Trends 2026

- AI-first Python development
- LLM integration & APIs
- Automation-first workflows
- Open-source contributions

10. Learning Timeline

- 0–3 Months: Python Foundations
- 3–6 Months: Intermediate + Projects
- 6–12 Months: Advanced + Specialization
- Daily & weekly study routines