Goal: Build projects, gain certifications, and become job-ready for blockchain development roles using Python.

Time Commitment: 8–12 hours/week

🔷 🗒️ Phase 1: Blockchain Fundamentals + Python Project (Weeks 1–4)

📘 **Course**: Blockchain A-Z™ on Udemy

- Build a simple blockchain, cryptocurrency, and web app with Flask.
  Link: https://www.udemy.com/course/build-your-blockchain-az/
- Tools: Python, Flask, Postman

Week 1 (Jul 07 – Jul 13)

- - Intro to blockchain: hash functions, proof-of-work
- - Python: hashlib, json, time
- - Build a basic Block class

Week 2 (Jul 14 – Jul 20)

- - Implement proof-of-work and link blocks
- - Validate blockchain

Week 3 (Jul 21 – Jul 27)

- - Add mining logic, transactions, and networking
- - Implement consensus algorithm

Week 4 (Jul 28 – Aug 03)

- - Create a Flask API for the blockchain
- - Test endpoints using Postman
- - Deploy and document project on GitHub

🔷 🗒️ Phase 2: Python for Web3 & Ethereum (Weeks 5–8)

📘 **Course**: Python for Blockchain Developers – Moralis Academy

- Learn to interact with Ethereum using Python and Web3.py.
  Link: https://academy.moralis.io/

- Tools: Web3.py, Python, MetaMask, Infura or Alchemy

Week 5 (Aug 04 – Aug 10)

- - Intro to Ethereum, wallets, smart contracts
- - Set up Web3.py and connect to Goerli testnet

Week 6 (Aug 11 – Aug 17)

- - Send ETH via Python
- - Explore Etherscan and test transactions

Week 7 (Aug 18 – Aug 24)

- - Interact with deployed contracts using ABI/address
- - Write Python scripts to read/write contract state

Week 8 (Aug 25 – Aug 31)

- - Mint a token or NFT using Python or Remix
- - Build a Token Dashboard project (upload to GitHub)

🔷 🗒️ Phase 3: Smart Contracts & Job Portfolio (Weeks 9–12)

📘 **Optional (but powerful)**: Blockchain Specialization – Coursera

- Blockchain Specialization by SUNY on Coursera: Covers foundational theory and smart contracts using Solidity.
  Link: https://www.coursera.org/specializations/blockchain

- Focus: Solidity + Ethereum + Deeper blockchain architecture
- Tools: Remix, Solidity, Web3.py

Week 9 (Sep 01 – Sep 07)

- - Learn Solidity basics: variables, functions, modifiers
- - Deploy smart contracts using Remix IDE

Week 10 (Sep 08 – Sep 14)

- - Develop and deploy an ERC-20 or NFT contract

Week 11 (Sep 15 – Sep 21)

- - Write Python integration with your smart contract

Week 12 (Sep 22 – Sep 28)

- - Polish all GitHub repos and documentation
- - Create LinkedIn posts about your projects
- - Add certificates to LinkedIn/resume
- - Prepare for interviews

✅ Your Portfolio (by end of 12 weeks)

Project	Description
Mini Blockchain in Python	Full implementation with Flask API
Web3 Python Scripts	ETH transactions + reading smart contract data
Token/NFT Project	Deployed on testnet + Python integration
(Optional) Smart Contract App	Basic dApp with frontend/backend integration