

Python (3 Months / 12 Weeks)

Week	Topics	Tools (Short Form)
1	Intro to AI, Types of AI, ML vs DL vs DS, Install Python tools	<i>Py, JN, Colab</i>
2	Python basics, Numpy, Pandas, Matplotlib, Seaborn	<i>Py, NP, PD, MPL, SB</i>
3	Math for AI: Linear Algebra, Probability, Statistics, Regression	<i>Py, NP, PD</i>
4	ML Basics: Regression, Classification, Train/Test, Prediction	<i>Py, SKL</i>
5	Classification: Logistic Reg, Decision Tree, Random Forest	<i>Py, SKL</i>
6	Unsupervised Learning: K-Means, PCA, Clustering	<i>Py, SKL</i>
7	Neural Networks: Perceptron, Activation, TensorFlow Intro	<i>TF, PT</i>
8	Deep Learning: CNN, Image Classification (MNIST/CIFAR-10)	<i>TF, PT</i>
9	NLP: Tokenization, Stopwords, Word2Vec, Sentiment Analysis	<i>NLTK, SP, TF</i>
10	AI in Real World: Chatbot, Ethics, AI Applications	<i>TF, NLTK</i>
11	Final Project Work: Classification / NLP / Recommendation	<i>TF, SKL, PT</i>
12	Final Project Presentation & Career Guidance	<i>All Tools</i>

Tool Short Forms:

- **Py** – Python
- **JN** – Jupyter Notebook
- **Colab** – Google Colab
- **NP** – NumPy
- **PD** – Pandas
- **MPL** – Matplotlib
- **SB** – Seaborn
- **SKL** – Scikit-learn
- **TF** – TensorFlow
- **PT** – PyTorch
- **NLTK** – Natural Language Toolkit
- **SP** – SpaCy