Day 1

1. Introduction to World of AI
2. Branches of AI
   1. Deterministic AI
   2. Generative AI
   3. Futuristic AGI
3. Introduction to Machine Learning
4. Need of Data
5. Classification of Data
6. Deterministic AI Vs Generative AI and their intersections
7. Need of NLP and use cases
8. Introduction to Computer Vision
9. Deep Learning
   1. ANN (Architecture, Example of ANN – hands on)
   2. CNN (Architecture, Example of CNN – hands on0029

Day -2 (6 Hours)

1. Language Models: -NLP Basics – Tokenization (Unigram to BPE, Sentencepiece, Wordpiece) , Vectorization (TF to Word2Vec to ELMO )- hands on
2. Introduction to Vector Data bases
3. Transfer Learning
4. Language Modelling Basics (MLM and Self Supervised Learning, NSP, RTD)- Hands ON
5. Introduction to representation Learning and Latent Space
6. Introduction to LLM
7. Vania RNN – Example Hands On

Day -3

Advanced RNNs:

1. RNN LSTM
2. RNN GRU – Hands On
3. Seq2Seq Models- Hands On
4. Encoder-Decoder Architecture
5. Attention Mechanism
6. Transformer Architecture - Hands On
7. How Generative AI Models use transformer-based architecture.