

# TABLE OF CONTENTS

Page Number	Topic
80	Diffusion Models & DDPM (Gen AI)
81-83	Vector Fields (DDPM) (Gen AI)
83	DDIM (Gen AI)
84	DALL E 2 (Gen AI)
85	Conditioning (Gen AI)
86	Guidance (Gen AI)
87	Negative prompts (Gen AI)
88-89	Computer Vision (CV)
90	AGI, ASI
91	TTS (Text to speech)
92	STT (Speech to text), Voice Recognition
93	LLM Trains: inference, chunking, RAG, Streaming vs unstreaming
94	LLM Trains: open vs closed weights, Generation controls
95	LLM Trains: Memory (SRM/LLM), Agent planning types, Vector DB
96	Lemmatization, Stemming, Semi supervised, self supervised
97	Convolutional Neural Networks (CNN)
98	Auto encoders, GAN, Explainable AI (XAI), <sup>Confusion Matrix</sup>
99-103	Reinforcement learning (RL) (complete)
104	Neural Scaling Laws, Feature importance
105	Levenshtein and semantic scores for evaluating LLMs
106	Data Drift
107	Data Drift vs Knowledge drift (and relation to RAG)
108	AI Poisoning + Claude poisoning study + <sup>Federated (distributed) Learning</sup>
109	Memory forgetting Mechanisms in LLMs, SEAL and 2028 data wall
110	Tiny Recursive model, "Dropout" in Neural Networks
111	Implicit Feature Engineering