Google Cloud

The Art and Science of Machine Learning

Readings and Videos

Module 2: The Art of ML (The Art of ML)	
	Regularization
	L1 and L2 Regularization Methods
	L1 and L2 Regularization
	The difference between L1 and L2 regularization
	Use Weight Regularization to Reduce Overfitting of Deep Learning Models
Module 2: The Art of ML (Learning rate and batch size)	
	Batch Size and Learning Rate in CNNs
	How to Configure the Learning Rate When Training Deep Learning Neural Networks
	Demystifying Optimizations for machine learning
	Optimization: Problems & Algorithms
	An introduction to high-dimensional hyper-parameter tuning
Module 3: Hyperparameter Tuning	
	Overview of hyperparameter tuning
	Hyper-parameter optimization algorithms: a short review
	Hyperparameter Tuning

Module 4: A Pinch of Science	
	Intuitions on L1 and L2 Regularisation
	Regularization for Sparsity: L_1 Regularization
	Regularization for Sparsity
	L1 Norm Regularization and Sparsity Explained for Dummies
	Logistic Regression: From Art to Science
	Logistic Regression — Intro To Machine Learning
Module 5: The Science of Neural Networks	
	Neural Networks - What are they & why they matter
	Foundations Built for a General Theory of Neural Networks
	Neural Networks : multiclass classification
	Multiclass Neural Network
	Multi-Class Neural Networks - Video Lecture
Module 6: Embeddings	
	Introduction to Word Embedding and Word2Vec
	Document Embedding Techniques
	Similarity-based Learning via Data Driven Embeddings
	tf.sparse.SparseTensor
	Neural Network Embeddings