National Computing Education Accreditation Council NCEAC

Course Log -Spring 2024

Institution : FAST School of Computing ,National University of Computer & Emerging Sciences, Lahore

Course Name : CS4063-Natural Language Processing (BDS-6B)

Week	Date	Duration	Lecture Topics
1	22-Jan-24	1.5	Introduction to NLP, Basics of Regular Expression
	24-Jan-24	1.5	More Examples on Regular Expression, Tokenization of Shakespeare text based on spaces.
2	29-Jan-24	1.5	Introduction to N Grams
	31-Jan-24	1.5	Perplexity and N Grams
4	12-Feb-24	1.5	Smoothing Techniques and Detailed Text Normalization Techniques
	14-Feb-24	1.5	Naive Bayes Classifier on Text Data
5	19-Feb-24	1.5	Confusion Matrix and Quiz
	21-Feb-24	1.5	TF-IDF, Similarity Measure (Cosine Similarity)
6	28-Feb-24	1.5	Midterm 1
7	4-Mar-24	1.5	PPMI, Introduction to dense vectors, CBOW
	6-Mar-24	1.5	Word to Vec in-depth, Skip Grams with example
8	11-Mar-24	1.5	Skip Gram Activity
	13-Mar-24	1.5	Neural Language Model
	15-Mar-24	1.5	Detailed Example on Neural Language Modelling. Introduction to RNN's
9	18-Mar-24	1.5	Detailed Example on RNN
	20-Mar-24	1.5	Basic of Back Propagation on NN, Back Propagation through time.
	22-Mar-24	1.5	Understanding GRU
10	25-Mar-24	1.5	Understanding LSTM & Bi-LSTM
	27-Mar-24	1.5	More on LSTMs & Quiz
11	1-Apr-24	1.5	Revision on PPMI and BackProp in LSTM
	3-Apr-24	1.5	Midterm 2
12	8-Apr-24	1.5	Machine Translation
13	15-Apr-24	1.5	Introduction to Machine Translation (Seq2Seq)
	17-Apr-24	1.5	Attention Mechanism on LSTM for seq2seq paradigm
14	22-Apr-24	1.5	Transformer's Encoder Mechanism
	24-Apr-24	1.5	Decoder of Transformer with an Example
15	29-Apr-24	1.5	Introduction to Dynamic Embeddings, ELMo & BERT
16	6-May-24	1.5	BERT Explained in Detail, Bleu Score Example
	8-May-24	1.5	POS Tagging Basics and Loss Function on Transformers
17	13-May-24	1.5	HMM for POS and NER Introductory

Instructor Signature: _____

Instructor Name: Hamad ul Qudous

HOD Signature: _____

HoD Name: Aamir Wali