

Materia: Deep Learning

A cargo de: Mtro. Oscar Alejandro Uscanga Junco, Mtra. Alida Esmeralda Zárate Jiménez y Mtra. Edna Cruz Flores

CLASE	IMPARTE	TEMAS	PRÁCTICA	FECHA DE ENTREGA
Semana 1 - 31 de agosto, 2022	Mtra. Edna Cruz Flores	Introduction to Deep Learning	NA	NA
		Welcome		
		What is a Neural Network?		
		Supervised Learning with Neural Networks		
		Why is Deep Learning taking off?		
		About this Course		
Semana 2 - 7 de septiembre, 2022	Mtra. Alida Esmeralda Zárate Jiménez	Neural Networks Basics	Python Basics with Numpy y Logistic Regression with a Neural Network Mindset	19 de octubre, 2022
		Binary Classification		
		Logistic Regression		
		Logistic Regression Cost Function		
Semana 3 - 14 de septiembre	Mtro. Oscar Alejandro Uscanga Junco	Gradient Descent		
		Derivatives		
		More Derivative Examples		
Semana 4 - 21 de septiembre, 2022	Mtra. Edna Cruz Flores	Computation Graph		
		Derivatives with a Computation Graph		
Semana 5 - 28 de septiembre, 2022	Mtra. Alida Esmeralda Zárate Jiménez	Logistic Regression Gradient Descent		
		Gradient Descent on m Examples		
Semana 6 - 5 de octubre, 2022	Mtro. Oscar Alejandro Uscanga Junco	Vectorization		
		More Vectorization Examples		
		Vectorizing Logistic Regression		
		Vectorizing Logistic Regression's Gradient Output		
Semana 7 - 12 de octubre, 2022	Mtra. Edna Cruz Flores	Broadcasting in Python		
		A Note on Python/Numpy Vectors		
		Quick tour of Jupyter/iPython Notebooks		
		Explanation of Logistic Regression Cost Function (Optional)		

Semana 8 - 19 de octubre, 2022	Mtra. Alida Esmeralda Zárate Jiménez	Shallow Neural Networks	Planar Data Classification with One Hidden Layer	16 de noviembre, 2022
		Neural Networks Overview		
		Neural Network Representation		
		Computing a Neural Network's Output		
		Vectorizing Across Multiple Examples		
		Explanation for Vectorized Implementation		
Semana 9 - 26 de octubre, 2022	Mtro. Oscar Alejandro Uscanga Junco	Activation Functions		
		Why do you need Non-Linear Activation Functions?		
		Derivatives of Activation Functions		
Semana 10 - 2 de noviembre, 2022	NA	DÍA FESTIVO		
Semana 11 - 9 de noviembre, 2022	Mtra. Edna Cruz Flores	Gradient Descent for Neural Networks		
		Backpropagation Intuition (Optional)		
		Random Initialization		
Semana 12 - 16 de noviembre, 2022	Mtra. Alida Esmeralda Zárate Jiménez	Deep Neural Networks	Building your Deep Neural Network: Step by Step y Deep Neural Network.	30 de noviembre, 2022
		Deep L-layer Neural Network		
		Forward Propagation in a Deep Network		
		Getting your Matrix Dimensions Right		
		Why Deep Representations?		
Semana 13 - 23 de noviembre, 2022	Mtro. Oscar Alejandro Uscanga Junco	Building Blocks of Deep Neural Networks		
		Forward and Backward Propagation		
		Parameters vs Hyperparameters		
		What does this have to do with the brain?		
Semana 14 - 30 de noviembre, 2022	ALUMNOS	Actividad extra.	Exponer implementación propia de perceptrón multicapa	30 de noviembre, 2022