

Calendar

Week 1 - Introduction to Machine Learning

July 14:	LECTURE Neural Networks	READING Box's Loop	READING Neural Networks from Scratch	DEMO Tensorflow Playground	HANDOUT Perspectives in Philosophy of Science: Realism, Anti-Realism, and Beyond
July 15:	LECTURE Circuits	READING Backprop Explainer	DEMO C. elegans Neural Interactome	READING Calculus on Computational Graphs: Backpropagation	DEMO The NAND Game READING The NAND Game Solutions
July 16:	LECTURE Lesson Plan Brainstorming	DATA NYC OpenData	DATA NYC TMC	DATA Ultralytics Datasets	DATA HuggingFace Datasets
July 17:	LECTURE Machine Learning	HANDOUT Concepts in Deep Learning	READING Overview of Machine Learning Algorithms	READING Overview of Machine Learning Tasks	READING Model Evaluation: Training, Validation and Testing
	LECTURE Computer Vision	HANDOUT Introduction to Convolutional Neural Networks	DEMO MNIST Fully Connected Network	DEMO MNIST Convolutional Neural Network	READING Convolutional Neural Networks Explained

Week 2 - Experiments for Students

July 21:	LECTURE Computer Vision	HANDOUT Introduction to Object Tracking	DEMO MNIST Fully Connected Network	DEMO MNIST Convolutional Neural Network
July 22:	LECTURE Language Models	READING An Introduction to Language Models		
	LECTURE Brief History of AI	READING History of AI		
	LECTURE Datasets and Demos	DEMO Embedding Projector	DATA NYC Vital Parks Data	DATA Citi Bike Trip Data
			DEMO Image-to-3D	
July 23:	LECTURE Object Detection	DEMO CVAT Tutorial	DEMO Google Colab Tutorial	DEMO Training a YOLOv8 Model for Object Detection