	Paper Name	Link	Related	Code Available	Comments	Purpose	For Related, Please rate one these	e 3
ushar	Rethinking Positional Encoding	hw//				Count for each	Yes No	Maybe
		https://arxiv.org/abs/2107.02561	NO			Count for each	14 42	
		https://arxiv.org/abs/2107.02232	NO					
		https://arxiv.org/abs/2107.02191	No					
		https://arxiv.org/abs/2107.01983	No					
	A contextual analysis of multi-layer perceptron models in classifying hand-written digits and letters: limited resources	https://arxiv.org/abs/2107.01782	Maybe		Techniques used in this paper, can be helpful to increase the performance of MLP			
	Short-term probabilistic photovoltaic power forecast based on deep convolutional long short-term memory network and kern	https://arxiv.org/abs/2107.01343	No					
		https://arxiv.org/abs/2107.00645	Maybe	Yes	(*) Perhaps interesting if order awareness becomes relevant for textual tokens: Improvement on Vision Transformers			
			No		()			
		https://arxiv.org/abs/2107.00507	INU					
		https://arxiv.org/abs/2107.00070	No	<u> </u>				
	Rethinking Token-Mixing MLP for MLP-based Vision Backbone	https://arxiv.org/abs/2106.14882	Yes		Improvement on Token Mixing MLP			
or								
	A 3D CNN Network with BERT For Automatic COVID-19 Diagnosis From CT-Scan Images	https://arxiv.org/abs/2106.14403	No		Task specific, no novel MLP use			
	Generalized Zero-Shot Learning using Multimodal Variational Auto-Encoder with Semantic Concepts	https://arxiv.org/abs/2106.14082	No		Focus on VAE-s			
	Exploring Corruption Robustness: Inductive Biases in Vision Transformers and MLP-Mixers	https://arxiv.org/abs/2106.13122	Maybe	can reference in report	Transformers are more robust to corruption than CNN and MLP mixers			
		https://arxiv.org/abs/2106.12614	No		How is this even a paper in 2021? (SVM MLP CNN on mnist)			
		https://arxiv.org/abs/2106.12368	Yes	ves	Vision specific MLP mixer, retains height&width dimension of patches, might give ideas			
		https://arxiv.org/abs/2106.1189	Ves	yes	Might give useful modern regularization ideas			
			Yes					
		https://arxiv.org/abs/2106.11064	No		Math heavy with proofs, seems strictly theoretical			
	Exoskeleton-Based Multimodal Action and Movement Recognition: Identifying and Developing the Optimal Boosted Learning Approa	https://arxiv.org/abs/2106.10331	No		Task specific comparions, k-NN works best			
		https://arxiv.org/abs/2106.10156	No		Basic binary classification, MLP, RNN, CNN comparison			
	Learning and Meshing from Deep Implicit Surface Networks Using an Efficient Implementation of Analytic Marching	https://arxiv.org/abs/2106.10031	No		Very specific graphics task			
	Early fault detection with multi-target neural networks	https://arxiv.org/abs/2106.08957	No .		no new MLP approach, multi-target MLPs detect faults earlier than single-target MLPs			
		https://arxiv.org/abs/2106.08541	No		use basic MLP, no new MLP approach			
		https://arxiv.org/abs/2106.08235	Yee	no	(*) for order aware models, perhaps for the literature; models the pairwise interaction between words by explicit pairwise wo	rd embeddings		
		https://arxiv.org/abs/2106.08235	No		framework for graph contrastive learning			
		https://arxiv.org/abs/2106.07886	Ato.		MLP-Mixer for attention-free image classification			
			140					
		https://arxiv.org/abs/2106.07639	No		math heavy, comparing new approach based on the state-space with Kalman filter with MLP			
		https://arxiv.org/abs/2106.07477	Yes	code on PaddlePaddle	new MLP architecture, channel-mixing MLP instead of MLP-Mixer			
		https://arxiv.org/abs/2106.07110	No		use basic MLP for specific task, nothing new			
	Al Empowered Resource Management for Future Wireless Networks	https://arxiv.org/abs/2106.06178	No		theoretical, show that GNNs to MLPs			
	Empirical observations on the effects of data transformation	https://arxiv.org/abs/2106.05855	No		comparing different classifiers for geozone classification			
ti								
	Graph-MLP: Node Classification without Message Passing in Graph	https://arxiv.org/abs/2106.04051	Yes	Yes (Ansgar)	a novel MLP-based method, Graph-MLP for learning graph node feature distribution			
		https://arxiv.org/abs/2106.03209		can refernce in report	use the MI Ps instead of conventional state estimators			
			NO	can refernce in report				
		https://arxiv.org/abs/2106.02793	No		a geometric framework			
	Spline Positional Encoding for Learning 3D Implicit Signed Distance Fields	https://arxiv.org/abs/2106.01553	No		related to 3D shapes			
					a detailed analysis of the convolution-free ViTs and MLP-Mixers from the lens			
		https://arxiv.org/abs/2106.01548	No	referencing maybe	of the loss landscape geometry			
		https://arxiv.org/abs/2106.01401	No		shown that disparate architectures such as Transformers, depth-wise CNNs and MLP-based methods are closely related via	an affinity matrix used for context a	ggregation	
	Towards Deeper Deep Reinforcement Learning	https://arxiv.org/abs/2106.01151	No		Deep Reinforcement Learning			
					shoppingBERT (compare the generalizability of two learning strategies, i.e., transfer learning through the proposed model, ShopperBERT, vs. learning			
	One4all User Representation for Recommender Systems in E-commerce	https://arxiv.org/abs/2106.00573	V		learning through the proposed model, ShopperBERT, vs. learning from scratch)			
			res					
		https://arxiv.org/abs/2105.15203	No		ot (*) cool idea of segmenting text for tasks of sentiment analysis; Light weight MLP decoder			
	Can Attention Enable MLPs To Catch Up With CNNs?	https://arxiv.org/abs/2105.15078	Yes	referencing(more of sur	rey Comparision of different new architectures including MLP mixer			
ney								
	same as 40							
	A remark on a paper of Krotov and Hopfield	https://arxiv.org/abs/2105.15034	No		just a short remark			
		https://arxiv.org/abs/2105.14432	No		transformer-based			
		https://arxiv.org/abs/2105.14383	Maybe	No	an algorithm based on reinforcement learning (RL) to generate and apply a simple biologically-inspired synaptic-level learning	or policy for multi-layernercentron (N	II P) models	
		https://arxiv.org/abs/2105.14217	Yes	Vac	hierarchical Transformer where they use pure multi-layer perceptrons (MLPs)	image	,	
				162				
		https://arxiv.org/abs/2105.14110	Maybe	No	mixerGAN	image		
		https://arxiv.org/abs/2105.13904	No					
		https://arxiv.org/abs/2105.13508	Maybe	No	four variants of reduced complexity MLP (RC-MLP) architectures	information areal density of hard d	lisk drives	
		https://arxiv.org/abs/2105.13429	No		Particle image velocimetry			
	Structure and lattice thermal conductivity of grain boundaries in silicon by using machine learning potential and molecular dynamics		No		Grain boundaries (GBs) in polycrystalline sil-ico			
	DTNN: Energy-efficient Inference with Dendrite Tree Inspired Neural Networks for Edge Vision Applications	https://arxiv.org/abs/2105.11848	No		Dendrite-Tree based Neural Network (DTNN)			
ck			No .	no	perturbed gradient descent (PGD), Adam, AMSGrad, RMSProp , MLP			
:k	PGDOT Perturbed Gradient Descent Adapted with Occupation Time	https://arxiv.org/abs/2005.04507			Ensemble learning, Mixture of experts, Extreme learning machine, Neural network based ensemble learning			
:k		https://arxiv.org/abs/2005.04507 https://arxiv.org/abs/2105.11706	No					
ck	Mixture of ELM based experts with trainable gating network	https://arxiv.org/abs/2105.11706	No No					
k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology	https://arxiv.org/abs/2105.11706 https://arxiv.org/abs/1911.00195	No No Yos		,			
k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision	https://arxiv.org/abs/2105.11706 https://arxiv.org/abs/1911.00195 https://arxiv.org/abs/2105.01601	No No Yes	100				
k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks	https://arxiv.org/abs/2105.11706 https://arxiv.org/abs/1911.00195 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2101.02486	No No Yes Maybe	yes	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction			
k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Cassification. Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Croup Bellet with Graph Clustering	https://anxiv.org/abs/2105.11706 https://anxiv.org/abs/1911.00195 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2101.02486 https://anxiv.org/abs/2008.08808	No No Yes Maybe No	yes No				
:k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessell Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Belief with Graph Clustering Neural Network Potentials: A Concise Overview of Methods	https://arxiv.org/abs/2105.11706 https://arxiv.org/abs/1911.00195 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2101.02486 https://arxiv.org/abs/2008.08808 https://arxiv.org/abs/2107.03727	No No Yes Maybe No	yes No no	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network			
:k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Alixer: An al-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Belief with Graph Clustering Neural Network Potentials: A Concise Overview of Methods Enhancing Transformers with Gradent Boosted Decision Trees for NLI Fine-Tuning	https://anxiv.oru/abs/2105.11706 https://anxiv.oru/abs/1911.00195 https://anxiv.oru/abs/2105.01601 https://anxiv.oru/abs/2105.01601 https://anxiv.oru/abs/2008.08808 https://anxiv.oru/abs/2107.03727 https://anxiv.oru/abs/2105.03791	No No No	yes No no no	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network Transfer Learning, Natural Language Inference (NLI), Gradient Boosted Decision Trees (GBDTs), MLP			
ck	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Alixer: An al-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Belief with Graph Clustering Neural Network Potentials: A Concise Overview of Methods Enhancing Transformers with Gradent Boosted Decision Trees for NLI Fine-Tuning	https://arxiv.org/abs/2105.11706 https://arxiv.org/abs/1911.00195 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2101.02486 https://arxiv.org/abs/2008.08808 https://arxiv.org/abs/2107.03727	No No Yes Maybe No No No Maybe	yes No no	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network			
k	Mixture of ELM based experts with trainable gaiting network Rotation invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An ail-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Croup Bellei with Graph Clustering Neural Network Potentials: A Conoise Overview of Methods Enhancing Transformers with Gradent Boosted Decision Trees for NLI Fine-Tuning Machine Learning and Deep Learning for Fixed-Toxt Keystroke Dynamics	https://anxiv.oru/abs/2105.11706 https://anxiv.oru/abs/1911.00195 https://anxiv.oru/abs/2105.01601 https://anxiv.oru/abs/2105.01601 https://anxiv.oru/abs/2008.08808 https://anxiv.oru/abs/2107.03727 https://anxiv.oru/abs/2105.03791	No No No	yes No no no	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network Transfer Learning, Natural Language Inference (NLI), Gradient Boosted Decision Trees (GBDTs), MLP			
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:k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessell Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Belief with Graph Clustering Neural Network Potentials: A Concise Overview of Methods Enhancing Transformers with Gradient Boosted Decision Trees for NLI Fine-Tuning Machine Learning and Deep Learning for Fixed-Text Keystroke Dynamics A Neural Network Perturbation	https://ankiv.org/abs/2105.11708 https://ankiv.org/abs/2105.01601 https://ankiv.org/abs/2105.01601 https://ankiv.org/abs/2101.02488 https://ankiv.org/abs/2101.02488 https://ankiv.org/abs/2107.03727 https://ankiv.org/abs/2105.03721 https://ankiv.org/abs/2105.03791 https://ankiv.org/abs/2107.00507	No No No	yes No no no	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network Transfer Learning, Natural Language Inference (NLI), Gradient Boosted Decision Trees (GBDTs), MLP MLP, XGBoost, Keystroke Dynamics, deep Learning techniques	yers and two		
:k	Mixture of ELM based experts with trainable gating network Rotation Invariant Point Cloud Cassification. Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Bellet with Carpa Chatsering Neural Network Potentials: A Concise Overview of Methods Enhancing Transformers with Gradient Boasted Decision Trees for NLI Fine-Tuning Machine Learning and Deep Learning for Fixed-Text Keystroke Dynamics A Neural Network Perturbation Beyond Self-attention: External Attention using Two Linear Layers for Visual Tasks	https://arxiv.org/abs/2105.11708 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2105.01601 https://arxiv.org/abs/2105.03808 https://arxiv.org/abs/2105.03721 https://arxiv.org/abs/2107.03522 https://arxiv.org/abs/2107.00507 https://arxiv.org/abs/2107.00507 https://arxiv.org/abs/2105.02358	No No No	yes No no no	RNN, LSTM, Deep Learning, Automatic identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network Transfer Learning, Natural Language Inference (NLI), Gradient Boosted Decision Trees (GBDTs), MLP MLP, XGBoost, Keystroke Dynamics, deep Learning techniques DNN, Neuronal Network, Partial derivatives of MLP MLP for vision, that uses two external, small, learnable, shared memories, implemented simply using two cascaded linear le	yers and two		
*	Mixture of ELM based expents with trainable gaiting network Rotation invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Bellet with Carph Clustering Neural Network Potentials: A Concise Overview of Methods Enhancing Transformers with Gradient Boosted Decision Trees for NLI Fine-Tuning Machine Learning and Deep Learning for Fixed-Text Keystroke Dynamics A Neural Network Perturbation Beyond Self-attention: External Attention using Two Linear Layers for Visual Tasks RepMLP: Re-parameterizing Convolutions into Fully-connected Layers for Image Recognition	https://anxiv.org/abs/2105.11706 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03723 https://anxiv.org/abs/2105.03381 https://anxiv.org/abs/2105.023381 https://anxiv.org/abs/2105.01883	No No No	yes No no no	RNN, LSTM, Deep Learning, Automatic Identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Spit Loss, Graph Atlention Network Transfer Learning, Natural Language Inference (NLI), Gradient Boosted Decision Trees (GBDTs), MLP MLP, XGBoost, Keystroke Dynamics, deep Learning techniques DNN, Neuronal Network, Partial derivatives of MLP MLP for vision, that uses two external, small, learnable, shared memories, implemented simply using two cascaded linear la	yers and two		
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	Mixture of ELM based expents with trainable gaiting network Rotation invariant Point Cloud Classification: Where Local Geometry Meets Global Topology MLP-Mixer: An all-MLP Architecture for Vision Deep Learning Methods for Vessel Trajectory Prediction based on Recurrent Neural Networks BGC: Multi-Agent Group Bellet with Carph Clustering Neural Network Potentials: A Concise Overview of Methods Enhancing Transformers with Gradient Boosted Decision Trees for NLI Fine-Tuning Machine Learning and Deep Learning for Fixed-Text Keystroke Dynamics A Neural Network Perturbation Beyond Self-attention: External Attention using Two Linear Layers for Visual Tasks RepMLP: Re-parameterizing Convolutions into Fully-connected Layers for Image Recognition	https://anxiv.org/abs/2105.11706 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2105.01601 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03727 https://anxiv.org/abs/2107.03723 https://anxiv.org/abs/2105.03381 https://anxiv.org/abs/2105.023381 https://anxiv.org/abs/2105.01883	No No No	yes No no no	RNN, LSTM, Deep Learning, Automatic identificazion System (AIS), trajectory Prediction Graph Clustering, KNN, Split Loss, Graph Attention Network Transfer Learning, Natural Language Inference (NLI), Gradient Boosted Decision Trees (GBDTs), MLP MLP, XGBoost, Keystroke Dynamics, deep Learning techniques DNN, Neuronal Network, Partial derivatives of MLP MLP for vision, that uses two external, small, learnable, shared memories, implemented simply using two cascaded linear le	yers and two		

Multi-label papers				
Paper Title	Link	Related	Code Available	Comments
1 Priberam at MESINESP Multi-label Classification of Medical Texts Task	https://arxiv.org/abs/2105.05614	Maybe	Yes	
2 Enhancing Label Correlation Feedback in Multi-Label Text Classification via Multi-Task Learning	https://arxiv.org/abs/2106.03103			1) Pairwise Label Co-occurrence Prediction (PLCP), and 2) Conditional Label Co-occurrence Prediction (CLCP).
3 Multi-class Text Classification using BERT-based Active Learning	https://arxiv.org/abs/2104.14289			BERT
4 Multi-label classification of promotions in digital leaflets using textual and visual information	https://arxiv.org/abs/2010.03331	Maybe		1) image-based detection of the descriptions for each individual promotion and 2) multi-label classification of the productategories using the text from the product descript
Threshold				
Multi-label Classification: A Comparative Study on Threshold Selection Methods	https://www.researchgate.net/publication/27	7 Yes		
2 Threshold Moving Approaches for Addressing the Class Imbalance Problem and their Application to Multi-label Classificati				Related to Calibration threshold Th
3 Explainable Automated Coding of Clinical Notes using Hierarchical Label-wise Attention Networks and Label Embedding In				
4 Hierarchical multi-label classification using local neural networks	https://www.sciencedirect.com/science/articl	e Maybe		Hierarchical multi-label classification with local multi-layer perceptron and threshold
1 Multilabel - Text Classification	https://arxiv.org/abs/2003.11644			
2 Multi-Label Text Classification using Attention-based Graph Neural Network	https://arxiv.org/pdf/1905.10070v2.pdf			
3 Label-aware Document Representation via Hybrid Attention for Extreme Multi-Label Text Classification	https://arxiv.org/ftp/arxiv/papers/2010/2010.0	04		
4 Tag Recommendation for Online Q&A Communities based on BERT Pre-Training Technique	https://arxiv.org/pdf/1905.10070v2.pdf			
5 Label-Wise Document Pre-Training for Multi-Label Text Classification	https://arxiv.org/pdf/1906.02192v1.pdf			
6 Large-Scale Multi-Label Text Classification on EU Legislation	https://arxiv.org/pdf/1906.02192.pdf			
7 Medical Code Prediction from Discharge Summary: Document to Sequence BERT using Sequence Attention	https://arxiv.org/ftp/arxiv/papers/2106/2106.0	<u> </u>		
Hierachical models				
1 TaxoClass: Hierarchical Multi-Label Text Classification Using Only Class Names	https://aclanthology.org/2021.naacl-main.33	5.	No	Shen et al. (2021)
2 Hierarchy-Aware Global Model for Hierarchical Text Classification	https://aclanthology.org/2020.acl-main.104/		Yes	Zhou et al. (2020)
3 Concept-Based Label Embedding via Dynamic Routing for Hierarchical Text Classification	https://aclanthology.org/2021.acl-long.388.pr	di	No	Wang et al. (2021), they cited Zhou et al. (2020)
4 LA-HCN: Label-based Attention for Hierarchical Multi-label TextClassification Neural Network	https://arxiv.org/abs/2009.10938		No	Zhang et al. (2021)
5 Explainable Automated Coding of Clinical Notes using Hierarchical Label-wise Attention Networks and Label Embedding In	hitialisatior https://arxiv.org/abs/2010.15728		Yes	Dong et al. (2021)
6 Hierarchical Multi-label Text Classification: An Attention-based Recurrent Network Approach	https://dl.acm.org/doi/10.1145/3357384.3357	78	Yes	Huang et al. (2019)