Specialization -03

"Machine Learning Modeling pipelines in production"

WUK-01

1 Hyperpanameter Tuning

- Neural anchitecture search (NAS) is a method for automating the design of ANN.

- Man tune paparet ery

- Anchitecture choice
- activation tunctions
- weight initial strategy
- Learning note, stop condition

Touls
Kenas Tuneur

Auto ML - applies machine learning and search techniques to
the process of ereste machine learning models and pipeling.
It covers the complete pipeline from the new dates set
to the deployable.

AutoML automates the entire ML workflow.

- NAS: a few search strategies
 - · Grid Search · Random Search · Bayesian optimization
 - · Evolutionary Algorithms · Reinforcement Learning

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(TAD) minioral

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@ AutoML on the cloud

[Amazen sagemaken Autopilot]		
Cloud-based AutoML A Zune AutoML		
Google cloud Autom L		
Agwik Labs		
# Week: 02 Fru cloud use for		
@ Dimensionality		
- dimensionality reduction		
- Linear dimensionality reduction		
- principal component Analysis (PCA)		
- classification: LDA		
- Regrassion: PLS (partial Least Squares)		
- Unsupervised: PlA		
- others: SVD, ICA, NMF (Non-negative Matrin Factor)		
4) deproves non-square matrices.		
Dynantization of pruning (Model deployment on Edge dura) - ML Kit		
-Shrinking model file site - Come ML		
- post training quantization - TF Lite		
- guarditation Aware fraining (GAT)		

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-pruning	In or il stolla labour ha
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- tf. distribute strategy.	3.7
3) one device strategy
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- Knowledge Distillation (K)	I a la de de la companione
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- partial dependence plots.	what - if
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- partial dependence plots PDP box and py CE box	The state of the s
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Adversial Attack -) Advensial attack is to confuse the Tools Model. elevenhang # Ris Residual Analysis Foolbox Model Remediation H Statistical process control $M = np_{t}$ $\sigma = \sqrt{\frac{P_{t}(1-P_{t})}{n}}$ H Sequential Analysis Pt + Of 7, Pmin + 35 min # chiefering allowing behavioresib + [39192] + alos - Algorithm = OLINDDA, MINAS, ECSMINIA, GC3 * google doud AI continuous Evaluation # Week 05 @ Explainable AI (XAI) @ Responsible AI (RAI) - Benefronal modely @ Interpretability @ Model specific on Model Agnostic Interpretable Modely · Linear · Logistic · Decision Tree · Rule Fit, K-neartest reighbory >Model Agnostic methods

- These methods separate explanations from the machine learning model.

· partial Dependence plots (PDP) · permutation Feature

· Shapley values. . Testing concept Activition

@ Scaling from the said show and show the

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· LIME · TCAV & LIME

· AI Enplanations. Supple of the same of the same

- Model Sarrary: Tensorflow Sarving Torch Serve KF Server

- Contains Ondestration - Kubernster, Doctor Swarzen

to to take the spirit sold

