No.

Date

biggest bottleneck.

AI → Data, comp power, algorithm, scenario.

Alan Turing - 1950, John McCarty - 1956, 1 layer Percepteron (1970s)

2nd dev perceptron XOR - 1980s

School of thought:

Symbolism → physical symbol system, make inference, rule-based. → inference

Connectism → nn (neurons) → DL / NN

Behaviorism → perception & action → robotic systems, behaviour control, adaptation, evolving computer

AI processor: ↙ application specific IC

CPU, GPU, ASIC, FPGA. ← field programmable gate array.

TPU (tensor processing unit), NPU (nn processing unit).

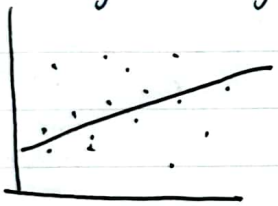
Speech Processing: - ~~voice~~ speech recognition. (most mature) -Voice synthesis

(most mature. -voice wake up (~~goo~~ voice assistant), -NLP.

Comp. Vision: img search. ↙ comp vis voice processing ↙ facial recog.

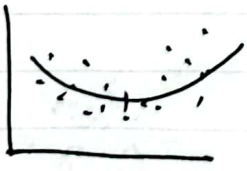
Field → Healthcare, smarthome; security, Driving ← Lv 4 5 → tesla = L3.

med imaging / health mangement, hopital management, med research, virtual assistant, med img, diagnosis, disease virus forecast



underfit → too simple; cant capture all complexity
→ not acc / high error.

overfit → too complex, no generalization capability.
→ low error on train data, but high in test data
→ high degree polynomial for small data



Good fit → Good balance
→ use regularization.
→ Cross validation.

Total error = Bias^2 + Variance + unreasonable error

Bias = diffe btw predicted val & correct val when trying to predict.

Variance = variability of model on diff input data.

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Cost / loss function.

→ function that means diff b/w pred out & the actual output

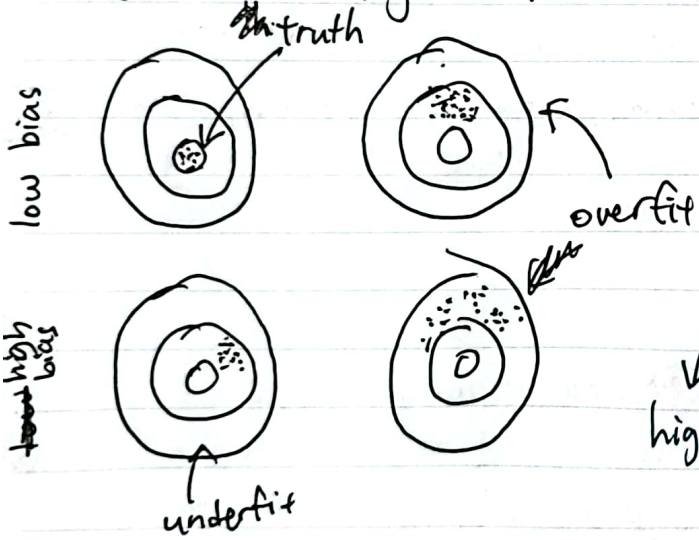
→ By minimizing the lost / cost function it increase the model accuracy when predicting

→ In surpervised learning cost function usually function / difference b/w model params & training data. E.g. cost function of linear regression is usually the MSE b/w predicted & true outputs.

→ In classification, cross-entrophy loss measures the dissimilarity b/w pred. class prob. & true class label.

→ In DL, cost funct is used in conjuction w. optimizer algo (gradient desent) to adjust weight & biases to improve accuracy of model.

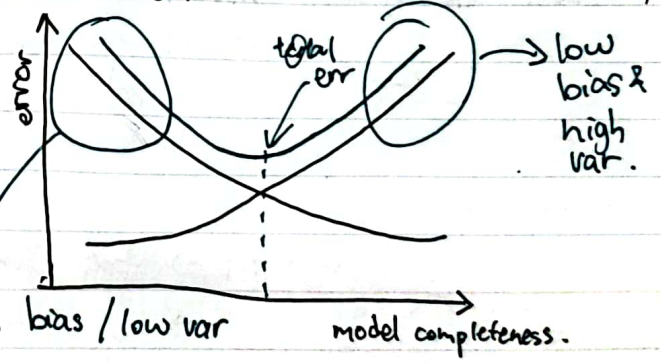
low var high var.



Bias: - use MSE ← mean square error

- MAE ← mean absolute error.

Variance: - k-fold cross validation



Optimization

- Gradient decent
- Stochastic Gradient decent
- Mini batch gradient decent
- Conjugate Gradient → like GD but it utilizes the conjugate direction vector moving towards global minima.

set of vector perpendicular to each other

LSTM → forget / input / output → more data → complex

GRU → update / reset → less data → simple

gated recurrent unit

variant of RNN

mindspore.ops.GradOperation is a 1st order derivative method in MS to comp grad, it has multiple params.

When get_all is set to True, the der. of all params are computed

ML → supervised → labeled data.
→ learns to map inp to out by adjusting params to minimize dist b/w pred & true
→ regression → tar var cont.
→ classification → tar var dis.

→ unsupervised → not labeled data
→ model find patterns & RS on its own

→ semi-super → when data is scarse.
→ model use label data to guide learning for unlabed data.
→ mostly classification.

→ Reinforcement learning → training agents to make decisions.
→ params chgd based on feedback of the environment

define func for collect info → callback

RIS on Huawei cloud provides text recog through open APIs.

Consider feature selection part of model selection. Method of embbeded are known as Regularization

Penalty methods → introduce bias → penalty const. → L1 can do feature selection
MAE.
L1 Regularization (Lasso) → add penalty loss func propotional to abs val weights
L2 Reg (Ridge) → penalty to loss func prop to model weight → less weight → no overfit.
sparse → use when many features. → many might =0.

Process → Data Collection → 1 data ⇒ 1 sample
→ attr ⇒ feature
→ labels ⇒ feature that the model adjust to.

→ Data Cleansing → 60% of time.
→ Fix ⇒ incomplete, noise, inconsistency, wrong format.
→ use ⇒ Data Filtering, process of loss data, combo of data from multiple data source.

→ Feature selection → filter redundant or irrelevant features.
→ reduce model training time, prevent dim explosion
→ improve model generalization,
→ prevent overfit.
→ Filter: correlation individual use statistical measure to measure relevance of each feature.
eg. Pearson's R / Chi² / Iceall Tau / F-score / mutual info / Specima's Rho / point bi derial / wrapper:
use a specific ML to eval performance of features - btr but more ex & slower.
es. forward / backward selecton / rescursion feature

→ Model Training → data spliting → training → varidation → test → deploy → feature.

→ Model Eval → Indicators: generalization, interpretability, prediction rate, plasticity

generalization: ability to perform well on unseen data. Impt for model to hv high generalization performance & low generalization err.

interpretability: Ease of understanding & explaining the dis/cour made by model. Good model shld be transparent & accountable in decision making proc.

prediction rate: Acc of models predictn. Good model = high pred.

plasticity: ability of model to adapt to new envior. chg. Eg: good model = high deg. plasticity.

No. Modes

Date → . stand-alone, distributed, Modes.

tf2 compat w tf1 but not ALL

return a result aft execution intuitive & flexible, but can compromise performance & deployability.

TF → FP16, FP32, INT32, INT8.

tf.random.normal([4], 2, 1, tf.float32)

↑ no of items ↑ means ↑ SD ↑ type

tf.contrib removed from tf2.

Ascend → 310 → Inference
↳ 910 → train model

hv eager exe, compat with tf.1
→ ez to learn, multiple platform.

tf → use keras as high lvl API → best Attn. → distributed learning.

pytorch → based use torch lua but in python → uniformity. → ease of use

list → [,], tuples → (,), dict → {k:v, k:v}

start from 0
reverse start -1.

concat tensors.

Atlas → 200DK / accelerator model
→ 300 → card model → 3000 / 3010
→ 500 → edge station model → 3000
→ 800 → AI server model → 3000/3010/3000/3010.
→ 900 → AI cluster (best) 9000

tf.abs, add, concat, errors, data, distribute, io.gfile, image, keras

keras.Layers. → ez to use, modular & composable (like building blocks), ez to extend. Create lyrs & loss func & to develop advanced model

tf.keras.sequential → recommended for model building when a sharing layer exist on the network.

Mindspore → Huawei → can run: comp / phone / cloud / internet.

why use

↳ Mind Express → callback / mixed precision, parallel / control API for training & inference, basic tensors, cells n optimizer & init.

↳ Mind compiler → compiles.

Auto Parallelism/ Second order opt / on-device exe/ efficient deploy on edge inference

↳ MindRT → mangement on hardware

↳ MindData → efficiently executing the train data.

↳ MindInsight → debug & optimization subsystem of mindspore.

↳ MindArmour → evaluation & enhancement method for AI.

Ascend → control CPU
→ AI chip
→ SoC sys on chip
↳ DVPP - digital vision pre-processing

daemon → computing unit, storage system, control unit.

AI processor
L0 → AI CPU / Core Comp resource.
L1 → Chip enable DVPP / drive / run / task scheduler.
L2 → Exe framework. frame manager / AI model housekeeper.
L3 → AI Application. CV Engine / Lang engine

Generative Confrontation Network.
↳ into retrieval ↳ img generate
↳ data enhancement ↳ semantic segmentation

No.

Date . .

HiAI → 1 single device
→ 2 multiple
→ 3 distributed.

Java android Can.

↳ Foundation → AI computing lib of a mobile computing platform, enabling developers to efficiently compile AI app to run mob
↳ Engine → opens app capabilities & integrated multiple AI to apps making it btr.
↳ Services → reuse services on multiple devices → mobile / tabs.
↳ Why? → RT → stable → low cost.
↳ Ready to use → security

Huawei Cloud Enterprise Intelligence.
↳ TrafficGo → urban traffic governance solution. / 24/7 condition monitoring
↳ Industrial Intelligent Twins → deeply integrates industrial knowledge & AI.
↳ EI Health → genome / clinical research / drug discovery.
↳ Heating Go → use AI & big data to implement intelligent heat supply supervision, operations & control for heat sources
↳ Water Go → See water bodies.
↳ GeoGenius → Natural resource / Ecological / Agricultural monitoring / weather forecast / marine conservation / ER / disaster prevention

Model Arts → data preprocessing, semi auto dat label, distributed training auto model build & model deploy on device / edge / cloud to manage AI faster.
↳ ExeML → entry lvl
↳ Data Management →
↳ Training Platform → help train ez & faster
↳ Inference Platform
↳ AI Gallery → on demand subs deployment.
Model Arts Pro → for pros. → Image Search → Recognition
↳ HiLens → device cloud synery → AI in diff modes → develop visual & auditory AI apps
↳ Graph Engine Service (GES) → analysis in graph struc. based on relations
↳ SIS → Speech Interaction Service. → knowledge graph → ontology design /

→ NLP
→ CBS Customization NLP but dialog AI w Speech recog.
→ OCR optical char recog
deploy AI apps in ET
↑ manage many to one security

No.

Date . .

weight = weight N^R → Cognitive Intelligence
↳ Threshold
↳ The theory of evol
↳ Logic

New weight = Old weight + chg in weight GD.

tf → use check if it is tensors
↳ is_tensor
↳ is instance

The SGD & momentum optimizer use the same LR for each iteration

Underfit → train error is large
Overfit → train error is small.
concat adds if diff val. → (4,100,100,3) concat (4,100,100,3)
↳ (4,100,100,3) 6

MindSpore → predefined
↳ MAELoss
↳ WithGradCell

NO obtain & cleanse

Operation w. TF → Define in/out nodes. ↑
↳ train & save model
↳ Define learning param & operations
for model train

kernel func → Gaussian, Sigmoid, Polynomial.

Pooling layers → Max Pool achieve invariance
→ help overfit.
↳ don't reduce size / receptive field

TF2 → check not tensor
↳ is instance
↳ device
↳ tftypes

ModelArts → Codelabs + Notebook + SDK + tfy Charm + Pycharm IDE.

tanh → out is close to 0.
→ sigmoid is not monotonic & cont. & not ez to derive
→ more layer btr identification capability.
→ excessive can overfit → more don't mean btr
don't make convergence btr

→ Tensor is NOT a data matrix.
→ data coversion include chg color etc. → conversion also include norm.

No.

Date

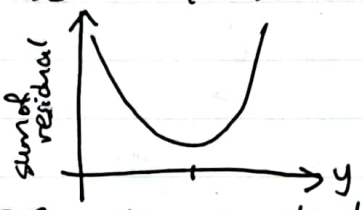
Optimizers.

Gradient Decent.

BFGs / L-DFGs → Broyden, Fletcher, Goldfarb, Shanno / Limited-memory BFGs. used for numerical optimization, widely used in logistic regression. L-BFGs, more memory efficient. Good for large models. eg. TSP

Stimulated annealing → good optimization to escape local minima

Melder-Mead → use direct search don't need gradient of func



Divergence is opp. occurs when algo is stuck in local minima or lr too high or algo not properly conjuded

STEPS = η x gradient → use steps

BGD → takes a point & calc cost func. adjusting accordingly until condition reached

→ Expensive asf / computational expensive / most stable.

SGD → Randomly pick points rather than taking all point, but this brings instability / might also reverse displace cost func

→ consume less computational power / less stable. point where optimization reach a stability, where it found best set of params to min loss.

MBGD → picks n-random samples

→ best balance of SGD & BGD.

GD w. momentum → GD that uses momentum to improve convergence

→ η calc every step.

(Adaptive Gradient Opt) It helps optimization locate the local minima.

AdaGrad → updates LR to perform larger LR updates for infrequent perimeters and small LR updates for frequent perimeters. helps converge opter faster and prevent overfit.

perimeters

adaptive momentum estimation.

Adam → combination of AdaGrad & GD w. momentum

Nesterov Accelerated Gradient (NAG) → A modified GD w. momentum that utilize fast momentum term in current gradient info → more we in DL.

AdaDelta → AdaGrad but rather than accumulating the squared gradient it takes the updates of the squared gradient.

→ η calc every 10 steps.

RMSProp → Faster than AdaGrad as gradient^2 gets larger.

No.

Date

Filter → not for feature sel. don't select redundant as they don't consider relation/hyp.

Optimizers — Atlas 900 → for oil explor & smart city

Nadom → NAG + Adam when last momentum is used in current moment est.

AdaMax → Combines Adagrad & Adam. has momentum & LR is updated norm (vector) is using infinity compared to L_2 Norm. Handles sparse gradient well.

Hyperparams search / optimizers:

- Needed because using wrong hyperparams can result in over/underfit.

→ Grid Search → Ez to implement & parallize but computational expensive when hyperparams. val. are large. k-only consider pre-defined val.

→ Random Search → less computational expensive, but still expensive, and can be hard to understand which hyperparams are most impt.

→ Bayesian Opt. → Use gausian process to find hyperparams combo. It's powerful as it uses a probabilistic model to find the best val.

→ Heuristic based Opt. → Use heuristic edge. like generic algo. or particle swarm algo to find best val. but hard to implement.

→ Gradient Based → SGD / BGD / MBGD

→ needs (not always but most tires) computated hyperparams

ML Algo.

Linear Regression → det. relation. b/w 2 or more var., the relation. is represented by a hyperplane. uses GD to optimize loss by finding the opt. weight. param.

→ Can be polynomial by adjusting the deg. of n which increase the dim. cuz n is a hyperparam. may cause overfit is selection is unexpected.

Logistic Regression → Generalized linear model used for solving classification. Act. func. for Logistic Regres. is Sigmoid func. It maps linear combination of inp. to prob. of 0 & 1. It can work w. continuous & discrete val. It's loss func is the Binary-Cross Enthropy & uses optimizers like gradient descent of dissmiting b/w the pred. prob distribution & the true labeled distribution.

1. The positive( ) direction is the maximum directional derivative of a function.
   Ans: gradient

2. HUAWEI HiAI built an open smart ecosystem based on the ( ), device and chip; three-layered open architecture. It enables developers to quickly utilize Huawei's powerful AI processing capabilities to provides a better smart application experience for uses.
   And: Cloud

3. Which of the following are common application scenarios of HUAWEI CLOUD OCR?
   A. Photo recognition for cats and dogs.
   B. Driving licence recognition
   C. VAT invoice recognition
   D. Aircraft itinerary recognition

   Ans: BCD

4. Which of the following statements are true about data conversion?
   A. Image data processing, such as color space conversion, grayscale image conversion, and geometric conversion, is a part of data conversion.
   B. In machine learning, features are often normalized to ensure that the value ranges of different variables input to the same model are the same.
   C. When the data dimension is high, the existing variables need to be combined and converted to generate new features, such as average.
   D. All data needs to be converted.

   Ans: AB

5. Which of the following are common ensemble learning algorithms in machine learning?
   a. Random forest
   b. GBDT
   c. Polynomial regression
   d. Adaboost

   Ans: ABD

6. Which of the following statements are true about grid search based on hyperparameter tuning?
   a. Grid search exhaustively searches for all possible combinations to form a hyperparameter value grid
   b. Grid search is expensive and time-consuming
   c. Grid search works well when there are relatively few hyperparameters
   d. Grid search suits neural network well

   Ans: ABC

7. Which of the following products can be equipped with Ascend 310 Processors?
   a. Altas 200 DK AI developer kit

b. Altas 500 AI edge computing
c. Altas 200 AI accelerator module
d. Altas 300 AI accelerator card

Ans: ABCD

8. Which of the following are common tensor operation in MindSpore?
a. dtype()
b. astype()
c. switch()
d. abs()

Ans: ABD

9. Which of the following development modes are supported by the ModelArts training platform?
a. In-cloud development(CodeLab)
b. In-cloud development(Notebook+SDK)
c. On-premise development(PyCharm+PyCharm Toolkit)
d. On-premises development(IDE+SDK)

Ans: ABCD

10. Which of the following statements are true about support vector machines(SVMs)?
a. SVM are binary classification models. Their basic model is the linear classifier with the largest interval defined in the feature space.
b. SVMs also have a kernel trick, which enables them to perform as a nonlinear classifier
c. The learning algorithm of SVMs is the optimal algorithm for concave quadratic programming
d. Based on the structural risk minimization(SRM), SVMs build an optimal hyperplane in the feature space so that the learner can be globally optimized.

Ans: ABCD

11. Which of the following statements are false about the Gated Recurrent Unit(GRU)?
a. Unlike long short-term memory(LSTM), GRU merges the cell state and hidden state.
b. GRU is a variant of a convolutional neural network(CNN) RNN LSTM
c. GRU combines the forget and update gates into a single input gate
d. GRU assembles the output of the previous time step with the input of the current time step.

Ans: BC

12. In MindSpore, if you want to define a function for collecting information after each step is complete, you need to inherit the ( ) class.

Ans: Callback

13. Which of the following statements are false about Keras?
    a. Like TensorFlow, Keras is a multi-layer neural network development package. However, Keras has simpler syntax and is easier to use.
    b. Keras is a neural network development package used to build CNN sequential models. It can not be used to build other neural network.
    c. The neural network model built using Keras must be compiled before data can be input into it for training.
    d. Keras can be used as the backend of TensorFlow.
    Ans: BD

14. The average value of tensors generated using tf.random.normal([4],2,1,tf.float32) is ( )
    Ans: 2

15. Which of the following are part of MindSpore?
    a. Mind Expression API layer
    b. Mind Compiler's real-time graph-level compilation subsystem
    c. CUDA and third-party chips
    d. MindData
    Ans: ABD

16. Which of the following statements is false about gradient descent algorithm?
    a. The gloabal gradient descent is more stable than the stochastic gradient descent(SGD)
    b. When there are too many samples and GPUs are not used for parallel computing, the convergence process of the global gradient descent is time-consuming
    c. When GPUs are not used for parallel computing, the mini-batch gradient descent (MGGD) takes less time than the SGD to complete an epoch
    d. Each time the global descent updates its weight, all training samples need to be calculated.
    Ans: C

17. In the Da Vinci Architecture, which of the following computation data types is supported by the vector unit?
    a. INT16
    b. BFloat16
    c. FP32
    d. BFloat32
    Ans: c

18. Which of the following statements are true about the three main schools of AI?
    a. Behaviourism states that intelligence requires no knowledge, representation, or reasoning
    b. Connectionism states that AI can evolve like human intelligence

emphasizes the importance of real-world interactions b/w an organism and its enviornment in shaping intelligent behaviour is shaped by consequences of actions thr learning occurs through the repeated association of stimuli response

c. Behaviourism states that intelligent behaviour can only be expressed through constant interaction between humans and the surrounding environment in the real world.

d. Symbolism states that AI focuses on behaviour control, adaptive computation, and evolutionary computation. rule based AI, manipulating symbols & rules that represent knowledge & reasoning

Ans: AC

19. At a convolution layer, there are 256 5X5 convolution kernels, the size of an input feature map is 32X32X5, the convolution step is 2, and the zero padding is employed(padding size=1). So the size of the output feature map is ( )*( )*( ). (layer

256 channel so output also need same channel amt.

Ans: 15*15*256

$((32 - 5) \div 2) + 1 = 14.5 \approx 15$

20. Which of the following statements are false about the combination of the model bias and variance?

a. A good model requires a high variance and high bias

b. A high bias and high variance may result in overfitting

c. A high bias and low variance may result in underfitting.

d. A model with a high variance is of no application value.

can be anything based on usecase

Ans: ABD

21. Which of the following statements are true about MindSpore and Huawei all-scenario solutions?

a. The full-scenario deployment solution includes model generation and efficient execution

b. MindSpore Serving supports batching

c. Distributed training of ultra-large models and ultra-large datasets requires only data parallelism

d. MindIR is the key to "Train once, deploy everywhere"

Ans: ABD

22. Which of the following statements are false about GANs?

a. The discriminator input is mainly noise and real sample data.

b. GANs are a type of framework. They train the generator and discriminator through an adversarial process

c. GANs are trained using the BP algorithm

d. The input of the discriminator is mainly sample data provided by the generator

ANS: AD

fake sample

23. Backed by HUAWEI CLOUD's accumulated knowledge and expertise in AI, big data and other cutting-edge technologies, GeoGenius offers a one-stop AI development cloud platform for remote sensing data processing, mining, and management. Which of the following are the main functions of GeoGenius?

A. Weather forecasting

B. Afforestation wtf

C. Emergency response and disaster prevention

D. Smart transport infrastructure transport

Ans: AC

24. The ( ) subsystem of MindSpore provides Mind IR-oriented, graph-level, real-time compilation.
Ans: MindCompiler

RT, graph compilation for MIND IR, optimizing the computation graph & generating efficient code for deployment on various hardware. It enables fast & flexible deployment of ML models

25. Distributed training is a feature of the TensorFlow framework.
a. True
b. False

Ans: True

26. As the cornerstone of the Huawei full-stack all-scenario AI solution, Altas provides modules, card, and servers powered by Kunpeng AI processors to meet demands for computing power in all scenarios
Ascend
a. True
b. False

Ans: False

making MindSpore or PowerLed for building & deploying AI apps

27. The tree model used at the bottom layer of the random forest and GBDT algorithms is only the classification and regression tree(CART).
a. True
b. False
Ans: False

28. ModelArts allows visualized management throughout the AI development lifecycle, including data preparation, training, modelling, and inference. It does not support resumed training, training result comparison, or model lineage.
a. True
b. False

Ans: False

resume training

ReLU but Hr.

29. The softplus function has a continuous derivative and defines a smooth curved surface.
a. True
b. False

Ans: True

→ object based storage, optimized for unstructed data

30. Object Storage Service(OBS) can be widely used in scenarios with abundant relational data such as social apps, enterprise relationship analysis, knowledge graph, risk control and recommendations.

not relational

a. True
b. False

Ans: False

31. MindSpore accelerates model convergence through automatic parallelism and second-order optimization.
a. True
b. False
Ans: True

32. Assuming a dataset contains the areas and prices of 21,613 housing units in a city, a classification model can predict the prices of other housing units in the city.
a. True
b. False
Ans: False

33. MindSpore supports automatic graph splitting, which splits graphs based on the input and output data dimensions of the operators and integrated data parallelism, tensor parallelism and model parallelism.
a. True
b. False
Ans: False

34. Assuming the number of hyperparameters is the same, stochastic gradient descent(SGD) combined with manual adjustment achieves a better effect than adaptive learning rates.
a. True
b. False
Ans: False

35. Boosting independently builds multiple basic learners and then averages their predictions.
a. True
b. False
Ans: False

36. Grid search randomly selects hyperparameter combinations. Therefore, it has a high efficiency and accuracy.
a. True
b. False
Ans: False

37. One of the filter methods is using the Chi-Squared test to analyse the mapping between features and labels to implement feature selection.
a. True
b. False
Ans: Ture

38. TensorFlow 2.X is compatible with all TensorFlow 1.X modules.

a. True
b. False
Ans: False

39. HUAWEI HiAI 3.0 supports the development of P50 smartphones.
a. True
b. False
Ans: Ture

40. The ModelArts inference platform implements fast and efficient model inference and image recognition.
a. True
b. False
Ans: True

not in TF

41. The PIL module in TensorFlow 2.0 is used to perform operation on images.
a. True
b. False
Ans: False

is part of python lib.

42. AIR eliminated model differences between different backends through unified operator IR definitions. You can coordinate tasks on all platforms (devices, edge and cloud) based on the same model file.
a. True
b. False
Ans: True

43. Which one of the following actions can the function tf.squeeze be used for TensorFlow 2.0?
a. Element-wise addition
b. Computation of the absolute value
c. Tensor concatenation
d. Dimensionality reduction
Ans: D

44. Which of the following is not a common tensor operation in MindSpore?
a. Asnumpy()
b. Size()
c. Dim()
d. Ininstance()?
Ans: D

45. Which of the following commands can be executed to use the code of TensorFlow 1.X in TensorFlow 2?
a. Import tensorflow.compat.V1 as tf

b. Import tensorflow.v1 as tf
c. Import tensorflow as tf
d. Import v1 as tf
Ans: A

46. Which of the following statements is true about neural networks?
a. The full name of LSTM is Less Short-Term Memory
b. LSTM has nothing to do with RNNs
c. LSTM is suitable for processing events with long interval and delay in the time sequence
d. Neural networks can only propagate information forward

Ans: C

47. Which of the following is the reasoning method of the production system that draws conclusion through a rule library?
a. Forward
b. Backward
c. Bidirectional
d. Random
Ans: A

→ drawing conclusions through a rule library in a production system.
→ forward to infer new knowledge from existing knowledge
→ start from known facts and applies rules to derive new conclusions

48. Compared with the random forest algorithm, which of the following is false about the GBDT algorithm?
a. Training using the GBDT algorithm is faster than that of the random forest algorithm (under the same dataset and tree quantity)
b. The GBDT algorithm is easier to overfit than the random forest algorithm
c. The random forest algorithm tends to reduce the variance, while the GBDT algorithm tends to reduce the bias.
d. Both the GBDT and random forest algorithm can use the CART as the basic tree model
Ans: A

49. Which of the following is not a feature of HiAI 2.0?
a. Single-device
b. Multi-device
c. Device-cloud synergy
d. Distributed
Ans: D

Cross-entropy → measure performance of a classification whose out is a prob val of 0 and 1.
→ increases as the pred prob. diverges from actual

50. Which of the following statements is true about the loss functions typically used in deep learning?
a. Quadratic cost functions are usually used for classification, while cross-entropy cost functions are used for clustering
b. The quadratic cost function reflects the gap between the target output and the actual output.
c. The quadratic cost function reflects the gap between two probability distributions
d. The purpose of training is to minimize the loss function
Ans: B

Quadratic Loss → func to find how accurate a predictive model.
→ Diff b/w act & pred.
→ classification (probabilities) (Naive Bayes).

51. Which of the following is NOT a main function of HUAWEI CLOUD GeoGenius?
    a. Natural resource survey
    b. Ecological environment detection
    c. Weather forecast
    d. Real-time traffic detection

    Ans: D

52. "Knowledge representation is the unique method of representing knowledge using a set of symbols in a structure that can be understood by computers." Which of the following is true about this statement?
    a. This statement is false. The method of representing knowledge is not unique
    b. This statement is correct. The coding method of knowledge representation is unique
    c. This statement is correct. The knowledge representation can support expert systems.
    d. This statement is false. Knowledge representation cannot be used for expert rules or fuzzy inference.

    Ans : A

53. HUAWEI CLOUD Traffic Intelligent Twins (or TrafficGo) is a comprehensive urban traffic management solution. Which of the following functions is provided by this solution?
    a. Traffic parameter awareness
    b. Automatic path planning
    c. Emergency response and disaster prevention
    d. Assisted autonomous driving

    Ans: A

54. Which of the following is not a network operator in MindSpore?
    a. Conv2D
    b. SGD
    c. ControlDepend
    d. Softmax

    Ans: C

55. Which of the following is covered by HUAWEI CLOUD EI Health?
    a. Genome
    b. Smart Surgery
    c. Patient Care
    d. Doctor-patient dispute resolution

    Ans: A

56. Which of the following is the type of labels predicted by ensemble learning algorithm?
    a. Discrete and continuous
    b. Continuous
    c. Discrete
    d. Strain and discrete

    Ans: A

57. Which of the following statements is false about the ReLU function?
    a. The ReLU function is not differentiable at x=0 and a derivative is forcibly defined at the point
    b. The ReLU function effectively alleviates the vanishing gradient problem
    c. The surface defined at the zero point of the ReLU function is not smooth enough in some regression problems.
    d. Compared with Sigmoid and tanh, the convergence of the ReLU function is slow.
    Ans: D

58. Concat_sample_1=tf.random.normal(94,100,100,3])</br>concat_sample_2=tf.random.normal([40,100,100,3])</br>concated_sample_1=tf.concat([concat_sample_1,concat_sample_2], axis=0)</br>print(concat_sample_1.shape)</br>Which of the following is the output of this code?
    a. (44,200,200,6)
    b. (44,100,100,3)
    c. (40,100,100,6)
    d. (44,100,100,6)
    Ans: B

59. The architecture of CPUs is different from that of GPUs. CPUs are used for logic control in instruction execution, while GPUs have outstanding performance in matrix and parallel computation.
    a. True
    b. False
    Ans: True

60. Hilens can help small and micro companies realize smart access control
    a. True
    b. False

    Ans: True

61. Softmax can be used for multiple classification problems
    a. True
    b. False
    Ans: False

62. Cifar10 is a built-in data set of Keras.
    a. True
    b. False
    Ans: True

63. In CNN, the convolutional layer can reduce the dimension of feature maps.
    a. True
    b. False
    Ans: True

64. If the metrics parameter is not specified in Model.compile, no loss value will be outout.

a. True
b. False
Ans: False

65. The HiAI platform only supports the development of Huawei phones.
a. True
b. False
Ans: True

66. Da Vinci architecture is the core of the Ascend AI computing engine and AI processor
a. True
b. False
Ans: True

67. The biggest difference between logistic regression and perceptron is that logistic regression uses the Sigmoid activation function at the output layer, whereas perceptron uses the sign function. In addition, neither of the two models can resolve the XOR problem.
a. True
b. False
Ans: True

68. Knowledge graph can be applied to social networking, gene sequencing, and risk control
a. True
b. False
Ans: True

69. The Adam optimizer in TensorFlow 2.0 is the built-in optimizer of the Keras module.
a. True
b. False
Ans: True

70. PyTorch supports GPU acceletation
a. True
b. False
Ans: true

71. Scikit-learn is a free software machine leaning library for Python. It has powerful tools for data analysis and mining.
a. True
b. False
Ans: True

72. To install TensorFlow of the GPU version, you need to install CUDA and CuDNN.
a. True
b. False
Ans: True

73. The speed of gird search must be faster than random search.

a. True
b. False
Ans: False

74. Polynomial regression cannot resolve the nonlinear problem
a. True
b. False
Ans: false

75. Which of the following statements about ModelArts is incorrect?
a. Supports massive data preprocessing and automatic labelling
b. Support s large-scale distributed training
c. Quickly converts and migrates existing models
Ans: A

76. What is function of the convolution kernel in a CNN?
a. Data Cleaning
b. Feature extraction
c. Data enhancement
d. Regularization
Ans: B

77. How many images are included in the MINST handwritten digit database in the lab guide?
a. 5000
b. 6000
c. 7000
d. 8000
Ans: C

78. Import numpy as np
N=np.arange(24).reshape(2,-1,2,2)
Which of the following is the return result of n.shape after running the preceding code?
a. (2,3,2,2)
b. (2,2,2,2)
c. (2,4,2,2)
d. (2,6,2,2)
Ans: A

79. Which of the following statements about PyTorch is incorrect?
a. PyTorch uses dynamic graph
b. PyTorch supports GPU acceleration
c. PyTorch is a framework released by Facebook
d. PyTorch uses the Lua programming language
Ans: D

80. What operation does "isinstance" represent in TensorFlow 2.0?

a. Determine whether it is numpy
b. View device information
c. Determine whether it is Tensor
d. Merge tensor
Ans: C

81. Which of the following option is the artificial intelligence development framework launched by HUAWEI?
a. TensorFlow
b. PyTorch
c. MindSpore
d. Matlab
Ans: c

82. A company wants to use the HiAi Platform to develop its own APP. Which of the following IDEs can be used in conjunction with the HiAI platform?
a. Matlab
b. Andriod Studio
c. Spyder
d. Jupyter Notebook
Ans: B

83. In machine learning, how many support vectors can the SVM algorithm have?
A. 1
B. 2
C. 3
D. Several
Ans: D

84. In TensorFlow, which order of tensors are scalars?
a. Rank-0
b. Rank-1
c. Rank-2
d. Rank-3
Ans: A

85. The basic process of AI development includes the following steps: (1) Prepare data (2) Deploy the model (3) Evaluate the model (4) Determine the purpose (5) Train the model. Which option is the correct order of the above steps?
a. 4→5→1→3→2
b. 4->1->5->2->3
c. 4->1->5->3->2
d. 4->5->1->2->3
Ans: C

4 → 1 → 5 → 3 → 2

86. Which of the following is not the model deployment and application feature of the ModelArts platform?
a. Batch inference

b. Low throughput and low latency
c. Efficient distributed computing
d. Combination with Hilens for easy deployment on devices.
Ans: B

relationship of features in dataset

87. Which of the following models is not suitable for the scenario where the covariance between data features is large? → more related.
a. Logistic regression
b. SVM
c. Naïve Bayes → probabilistic classifier based on Bayes theorem with an assumption of independence b/w each pair of features.
d. Neural network
Ans: C

88. What determines the number of neurons in the input layer of the neural network?
a. Data dimension
b. Number of data items
c. Classification number
d. Number of parameters
Ans: A

89. Which of the following is not a feature of the Atlas 500 AI edge stations?
a. Strong computing
b. Easy deployment
c. High energy consumption
d. Cloud collaboration

Ans: C

90. Which of the following is the representation of behaviourism?
a. Expert system
b. Machine learning
c. Deep neural network
d. Reinforcement learning
Ans: D

91. Factory A produce 60% of an automotive company's products, and factory B account for 40%. The defective rate of factory A is 1%, and that of factory B is 3%. If a vehicle is defective, what is the possibility that the vehicle is produced by factory A?
a. ½
b. 1/3
c. 2/3
d. 1/6
Ans: B

92. Which of the following network is not a recurrent neural network?
a. BiRNN
b. Highway Network

c. LSTM
d. GRU
Ans: B

93. Which of the following problem can't be handled by the perceptron?
a. AND
b. OR
c. XOR
d. NOT

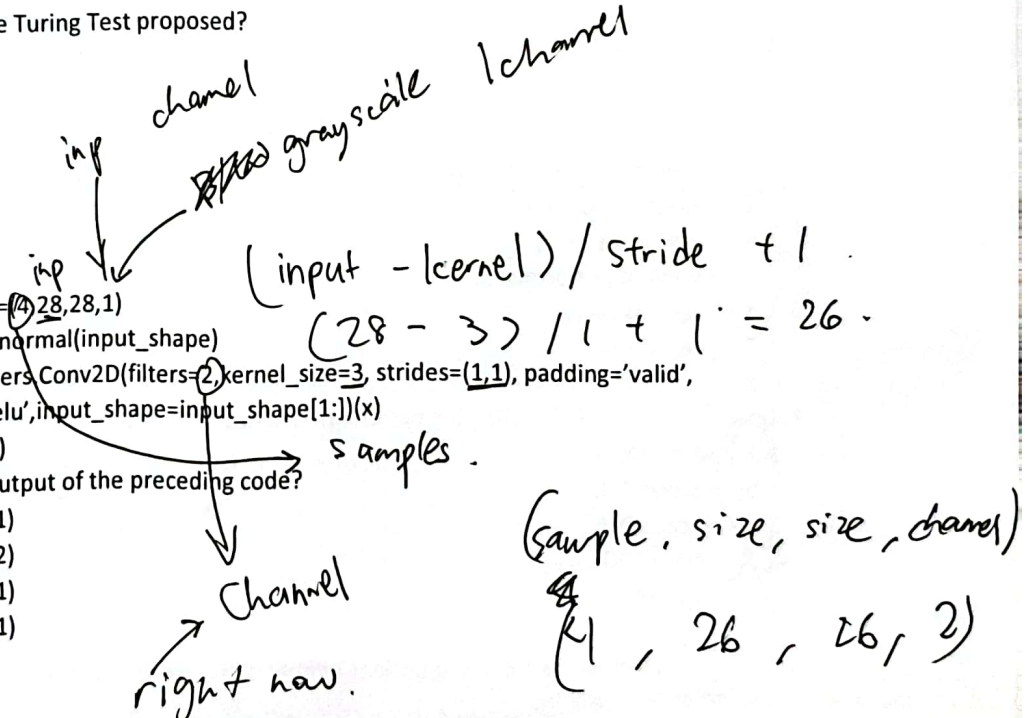
Ans: c

94. Which of the following options is a commonly used loss function for classification problems?
a. Mean square error loss function
b. Cross entropy loss function
c. L1 loss function
d. L2 loss function
Ans: B

95. When was the Turing Test proposed?
a. 1950
b. 1956
c. 1959
d. 1962

Ans: A

96. Input_shape =(4,28,28,1)
X=tf.random.normal(input_shape)
Y=tf.keras.layers.Conv2D(filters=2,kernel_size=3, strides=(1,1), padding='valid',
activation='relu',input_shape=input_shape[1:])(x)
Print(y.shape)
What is the output of the preceding code?
a. (4,28,28,1)
b. (4,26,26,2)
c. (2,28,28,1)
d. (2,26,26,1)
Ans: B



97. Which of the following is the output range of the ReLU function?
a. [0,+∞)
b. [0,1]
c. [-1,1]
d. [-1,0]
Ans: A

98. Which of the following options belong to the application scenarios of natural language processing?
a. Smart parking
b. Machine translation
c. Object detection
d. Public opinion monitoring
Ans: BD

99. When using HUAWEI CLOUD services, which of the following information will be used for authentication?
a. Current time
b. AK — access key
c. Service name
d. SK — secret key
Ans: BD

100. Which of the following are deep learning frameworks?
a. TensorFlow
b. PyTorch
c. MXNet
d. MindSpore
Ans: ABCD

101. Which case can Huawei EI support?
a. One-stop platform
b. Easy to use
c. Excellent performance
d. High flexibility
Ans: ABCD

102. Which of the following options are Huawei products?
a. Altas 200DK
b. Ascend 310
c. Ascend 910
d. Atlas 400DK
Ans: ABC

103. Which of the following options belong to Huawei HiAI platform content?
a. HiAI Service
b. HiAI Foundation
c. HiAI App
d. HiAI Engine
Ans: ABD

104. Which of the following options belong to the Huawei Cloud EI service?
a. ModelArts
b. EI Intelligent Twins

c. EI Experience Hall
d. EI Service Family
Ans: ABCD

105. Which of the following options are the main advantages of the Keras interface in TensorFlow 2.0?
a. Convenient for users
b. Modular and combinable
c. Easy to expand
d. Use a static graph mechanism

Ans: ABC

106. What type of service can be deployed on ModelArts?
a. Online services
b. Batch services
c. Edge services
d. Cloud services

Ans: ABC

107. Which of the following commands are used to read and write images in the OpenCV-Python library?
a. Cv2.imread()
b. Cv2.imwrite()
c. Cv2.cvtColor()
d. Cv2.waitKay()
Ans: AB

108. Which of the following are AI applications?
a. Smart speaker
b. Smart customer service
c. Autonomous driving
d. AlphaGo
Ans: ABCD

109. Which of the following are the problems you may encounter when training a generative adversarial network?
a. An overhigh learning rate leads to model divergence
b. The discriminator is too well trained at the beginning of the training. As a result, the generator can not be trained.
c. The mode collapse results in insufficiently diversified images
d. The number of data sets is small, causing model overfitting
Ans: ABCD

110. Which of the following options belong to the application scenarios of computer vision?

a. Smart parking
b. Industrial product defect detection
c. Machine translation
d. Smart customer service
Ans: AB

111. Which of the following may cause overfitting?

a. The model capacity is small
b. The model capacity is large
c. The training set includes a large amount of dirty data
d. The number of training sets is small
Ans: BCD

112. Which of the following options belong to data preprocessing?

a. Data standardization
b. Missing value processing
c. Data dimensionality reduction
d. Data merging
Ans: ABCD

113. Laplace smoothing can be used to address the "zero probability" problem in the naïve bayes model.

a. True
b. False
Ans: True

114. MindSpore supports GPU acceleration

a. True
b. False
Ans: True

115. Voice recognition refers to the recognition of text data as audio data.

a. True
b. False
Ans: False

116. Automatic graph segmentation is one of the key technologies of MindSpore.

a. True
b. False
Ans: True

117. The generalization error will continue to decrease as the complexity of the model increases.

a. True
b. False

Ans: False

118. AI is the core research area of machine learning.
a. True
b. False
Ans: False

119. Cifar10 is a built-in data set of Keras
a. True
b. False
Ans: True

120. The Adam optimizer in TensorFlow 2.0 is the built-in optimizer of the Keras module.
a. True
b. False
Ans: True

121. Atlas series chips need the support of CUDA software package like other GPU accelerator cards.
a. True
b. False
Ans: False

122. TensorFlow supports multiple programming languages.
a. True
b. False
Ans: True

123. In the KNN model, a small K value may cause model underfitting.
a. True
b. False
Ans: False

124. In a medical image recognition task, we usually are more concerned about the recall ratio than the precision ratio when evaluating model performance.
a. True
b. False
Ans: True

125. Jobs that are innovative and have high requirements on social capabilities cannot be easily replaced by AI.
a. True
b. False
Ans: True

126. TensorFlow2.0 uses Keras and eager execution to easily model.

a. True
b. False
Ans: True

127. Similar to a hidden layer, the quantity of neurons at both and input layer and an output layer of a neural network is ~~a hyper~~parameter that can be ~~adjusted.~~

a. True
b. False
Ans: False

128. Which of the following network layers does not need to be included in a CNN?

a. Input layer
b. Convolutional layer
c. Pooling layer
d. Output layer
Ans: C

129. Which of the following learning methods is most suitable for training machine learning models of chessboard games?

a. Supervised learning
b. Unsupervised learning
c. Semi-supervised learning
d. Reinforcement learning → penalty system.
Ans : D

130. Which of the following statements about AdaGrad is incorrect?

a. AdaGrad can dynamically adjust the learning rate. The more parameters are updated, the lower the learning rate.
b. AdaGrad can adjust the learning rate for different parameters.
c. When AdaGrad optimizes the model, the learning rate is dynamically adjusted by dividing the learning rate by the root mean square of all gradients of a parameter.
d. AdaGrad calculates the quadratic differential of a parameter to dynamically adjust the learning rate.

Ans: D

131. Which of the following options is the classification of the AI chip business from the application?

a. Inference and Acceleration
b. Acceleration and Training
c. Training and Inference
d. Compiling and Training
Ans: C

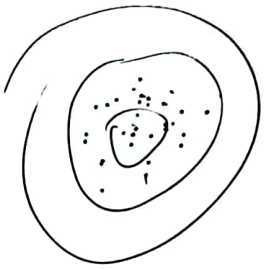
132. Which of the following schools does the expert system belong to?

a. Symbolism
b. Connectionism
c. Behaviorism

d. None of the above
Ans: A

133. Which of the following options is the architecture adopted by Huawei Atlas series chips?
a. Von Neumann
b. Gauss
c. Ascend
d. Da Vinci
Ans: D

134. If a model has a small bias and a large variance on the test set, what is the problem with the model?
a. Underfitting
b. Overfitting
c. Just fitting
d. Overfitting or underfitting



Ans: B

135. Which of the following options is the type of label in classification task?
a. Discrete type
b. Continuous type
c. Semi-deformable type
d. Strain type
Ans: A

136. Which of the following is a function of HiAI Foundation?
a. Push services based on user requirements
b. Quickly convert and migrate existing models
c. Integrate multiple AI capabilities with apps.

Ans: B

137. Which of the following options is Huawei's artificial intelligence computing platform?
a. ModelArts
b. Huawei Cloud EI
c. ECS
d. Atlas
Ans: D

138. Which of the following statement about dropout is incorrect?
a. Dropout rate is a hyperparemeter
b. During training, the network layer to which dropout is added will randomly discard neurons of dropout rate.
c. If dropout is added to a network layer during training but not during inference, the weight value of this layer multiplies(1-dropout rate)

d. Dropout can't be added during inference.

Ans: D

139. Which of the following options makes the GPU suitable for the acceleration of neural networks?

a. Control scheduling ability
b. Parallel computing ability
c. Serial computing ability
d. The ability to call data from memory

Ans: B

140. When tf.keras is used to build a network model, which of the following statements about tf.keras.Model and tf.keras.Sequential is incorrect?

a. The former supports the multi-input network model, while the latter does not support.
b. The former supports the multi-output network, while the latter does not support
c. If a sharing layer exists on the network, the former is recommended for building a model.
d. If a sharing layer exists on the network, the latter is recommended for building a model.

Ans: D

sharing layer → better.

141. What kind of operation does "concat" represent in TensorFlow 2.0?

a. Merge tensor
b. Delete tensor
c. Create tensor
d. Tensor split

Ans: A

142. Which of the following are the major modules of the Ascend AI processor?

a. Chip system control CPU CPU
b. AI computing engine AI chip
c. Multi-level System-On-a-Chip cache or buffer SoC
d. Digital vision pre-processing module DVPP

Ans: ABCD

143. Which of the following options belong to Huawei HiAI platform content?

a. HiAi Service
b. HiAi Foundation
c. HiAi App
d. HiAi Engine

Ans: ABD

144. Which of the following are the common loss functions used in machine learning?

a. Mean absolute error
b. Mean squared error
c. Cross entropy
d. Hinge Loss → max margin → cost cal w margin/dist.

Ans: ABCD

145. Which of the following environments are available for creating notebooks on ModelArts?

a. Python 2
b. Python 3
c. MindSpore
d. TF-2.1.0&PyTorch_1.4.0-python3.6

Ans: ABD

146. Which of the following operations can be performed on the ExeML module of ModelArts?

a. Upload and label data
b. Build a model
c. Train a model
d. Deploy a service and bring it online

Ans: ACD

147. What are the elements of AI?

a. Algorithm
b. Computing power
c. Data
d. Scenarios

Ans: ABCD

148. Which of the following options belong to data pre-processing?

a. Data standardization
b. Missing value processing
c. Data dimensionality reduction
d. Data merging

Ans: ABCD

149. Which of the following are application scenarios of EI Intelligent Twins?

a. TrafficGo
b. Industrial Intelligent Twins
c. CampusGo
d. Network AI Engine

Ans:: ABCD

150. What type of services can be deployed on ModelArts?

a. Online services
b. Batch services
c. Edge services
d. Cloud services

Ans: ABC

151. Suppose the following scenario: now we need to classify the data, and the data features are all continuous values. Which of the following models are suitable for this scenario?

a. Linear regression
b. Logic regression
c. Support vector machine
d. Decision tree

Ans: BC

152. Compared with the batch gradient descent method, which of the following options are the advantages of the mini batch gradient descent method?

a. Fast calculation speed in one time parameters update
b. Skip local minimum
c. Stable
d. No vanishing gradient problem

Ans: AB

153. In a medical image recognition project with deep learning used, the number of data sets is small. Which of the following methods can be used to resolve the problem?

a. Transfer learning
b. Meta learning
c. Data augmentation
d. Data upsampling

Ans: ABC

154. Powered by Ascend AI processors, the Huawei Atlas AI computing platform delivers products that come in various forms, such as modules, cards, edge stations, servers, and clusters, to build AI solutions for all scenarios across the device, edge and processor.

a. True
b. False

Ans: False

155. HUAWEI HiAi 3.0 supports the development of P50 smartphones.

a. True
b. False

Ans: True

156. Grid search randomly selects hyperparameter combination. Therefore, it has a high efficiency and accuracy.

a. True
b. False

Ans: False

157. The XOR problem can be solved by using the deep neural network
a. True
b. False
Ans: True

158. When collecting images for image processing, we usually use numbers(such as 0,1,2,3, and 4) to indicate image types. Because of this, we must perform one-hot or dummy encoding on data before training the model.
a. True
b. False
Ans: False

159. Although each industry and application faces unique challenges, they are all gradually adopting AI-based workflows and solutions.
a. True
b. False
Ans:True

160. OCR automatically extracts key information about invoices to help employees automatically fill in reimbursement forms. In addition, the RPA automatic robot can improve the efficiency of financial reimbursments.
a. True
b. False
Ans: True

161. Mini-batch gradient descent (MBGD) cannot balance the robustness of stochastic gradient descent and the efficiency of batch gradient descent, and we may risk getting stuck at local minima. It is not commonly used in practice.
a. True
b. False
Ans: False

162. If a 32X32 image(without padding) is input and a 5X5 kernel is used for convolution with a step of 2, the size of the output image is 13X13.
a. True
b. False
Ans: False

163. The development of AI technologies is trending towards various machine learning frameworks that are more applicable and easy to use.
a. True
b. False
Ans: True

164. TensorFlow is Microsoft's second-generation open-source software library built for digital computing.
a. True
b. False

And: False

165. As the compute core of an Ascend AI processor, the AI core is responsible for complex matrix computation

a. True
b. False
Ans: True

166. In the deep neural network, the backpropagation algorithm uses the ~~LHopital's rule~~ chain rule to perform layer-by-layer derivation and find the optimal parameters.

a. True
b. False
Ans: False

167. In the convolutional layer, the dropout ratio is the ratio of features whose values are set to 0. Generally, the dropout ratio rangers from 0.2 to 0.5.

a. True
b. False
Ans: True

168. The ModelArts inference platform implements fast and efficient model inference and image recognition.

a. True
b. False
Ans: True

169. Device, edge, cloud can respectively refer to smartphone, Huawei intelligent edge devices, and HUAWEI CLOUD.

a. True
b. False
Ans: True

170. AIR eliminates model differences between different backends through unified operator IR definitions. You can coordinate tasks on all platforms(device, edge, and cloud) based on the same model file.

a. True
b. False
Ans: True

171. ModelArts allows visualized management throughout the AI development lifecycle, including data preparation, training, modelling and inference. It does not support resumed training, training result comparison, or model lineage.

a. True
b. False
Ans: False

ignore ~~add horse~~

172. Dropout randomly discard certain neurons during training, so the parameters corresponding to the discarded neurons are not involved in the next round of training.

a. True
b. False
Ans: False

173. Which of the following commands can be executed to use the code of TensorFlow 1.X in TensorFlow 2?
a. Import tensorflow.compat.v1 as tf
b. Import tensorflow.v1 as tf
c. Import tensorflow as tf
d. Import v1 as tf
Ans: A

174. Which of the following is not a feature of HiAI 2.0?
a. Single-device
b. Multi-device
c. Device-cloud synergy
d. Distributed
Ans: D

175. Which of the following statements is true about the low-latency design of CPUs?
a. The low clock frequency reduces the latency
b. Complex logic control units increase the latency
c. A CPU is equipped with few ALUs and caches. The caches merge access requests to the same data and then access the DRAM, reducing the latency
d. The powerful ALU can complete the computation in a short clock cycle
Ans: D

176. A vendor wants to provide an intelligent EMR system for a hospital. Which of the following technologies is involved in the system?
a. Natural language processing
b. Object detection
c. Expert systems and knowledge graph
d. Image generation and enhancement
Ans: A

177. Which of the following is the purpose of running ocr_client=HWOcrClientAKSK(ak,sk,region) when using HUAWEI CLOUD OCR?
a. Initialize the client
b. Transfer images for recognition
c. Delete image data
d. Encode image data
Ans: A

178. Which of the following is NOT a main function of HUAWEI CLOUD GeoGenius?
a. Natural resource survey
b. Ecological environment detection
c. Weather forecast
d. Real-time traffic detection

Ans: D

179. Which of the following statements is false about the ReLU function?

a. The ReLU function is not differentiable at x=0 and a derivative is forcibly defined at this point
b. The ReLU function effectively alleviates the vanishing gradient problem
c. The surface defined at the zero point of the ReLU function is not smooth enough in some regression problem
d. Compared with Sigmoid and tanh, the convergence of the ReLU function is slow

Ans: D

180. Which of the following is not supported by data management on ModelArts?

a. A wide range of data formats
b. No-manual labelling
c. Intelligent data filtering
d. Intelligent data analysis

Ans: B

181. In TensorFlow 2.0,
x=tf.constant([1,2,3])</br>y=tf.broadcast_to(x,[3,3])</br>print(y)</br>which of the following is the output for this code?

a. [[1,2,3]]
b. [[1,2,3],[1,2,3],[1,2,3]]
c. [[1,2,3,1,2,3,1,2,3]]
d. [[1,1,1],[2,2,2],[3,3,3]]

Ans: B

182. Which of the following is not a network operator in MindSpore?

a. Conv2D
b. SGD
c. ControlDepend
d. Softmax

Ans: C

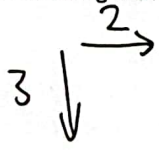
183. Which of the following is a method of compressing an AI model?

a. Low rank approximation
b. Network integration
c. Data Augmentation
d. Data volume reduction

Ans: A

184. Which of the following is the correct shape of tensor [[0,1],[2,3],[4,5]]?

a. (2,3)
b. (3,2)
c. (1,6)
d. (6,1)



(3, 2)

Ans: B

185. Which of the following statements is true about classification and regression models in machine learning?

a. For classification problems, the output variable are discrete values with a limited quantity. For regression problems, the output variables are continuous values.
b. The cross-entropy loss function is required for both regression and classification problems
c. There may be underfitting in both regression and classification problems, classification models are more prone to underfitting than regression models
d. The logistic regression model can be used to predict housing unit price.

Ans: A

186. Which of the following statements is true about the ReLU function?

a. The ReLU function is differentiable at x=0, and the derivative is 1
b. Neuron necrosis does not occur
c. There is no upper bound, so training is relatively easy to diverge
d. The gradient is always 1, and the vanishing gradient problem can be perfectly solved.

Ans: C

187. Which of the following is not a hyperparameter for model training?

a. Batch_size in a training neural network
b. K in K-means
c. B in the one-dimensional linear regression model Y=wX+b
d. Number of trees in a random forest

Ans: C

188. Which operation is not a step in the network definition process during application development?

a. Specifying an input dimension
b. Weight initialization
c. Defining an optimizer and a loss function
d. Model compression

Ans: D

189. Which of the following is not a common tensor operation in MindSpore?

a. asnumpy()
b. size()
c. dim()
d. isinstance()

Ans: D

190. Which of the following statements is true about the chip enablement layer in the Ascend AI software stack?

a. The Ascend AI software stack encapsulates the framework invoking and offline model generation capabilities
b. The Ascend AI software stack is the hardware compute basis of Ascend AI Processors

c. The Ascend AI software stack is nearest to the underlying compute resources and outputs operator-layer tasks to the hardware.
d. The Ascend AI software stack can invoke an appropriate deep learning framework based on the features of related algorithms
Ans: C

191. Which of the following statements are true about regression analysis?
a. Regression analysis is a statistical analysis method used to determine the quantitative relationship between two or more variable.
b. Regression analysis is a type of unsupervised learning
c. Regression analysis is a type of supervised learning
d. Linear regression with an absolute loss(L2 regularization) is called Lasso regression
Ans: C

192. Which of the following functions are supported by the HiAI Engine platform?
a. Form recognition
b. Keyword extraction
c. Video summarization
d. Automatic generation of video thumbnails
Ans: ABCD

193. Which of the following statements are false about GANs?
a. The discrimination input is mainly noise and real sample data
b. GANs are a type of framework. They train the generator and discriminator through an adversarial process
c. GANs are trained using the BP algorithm
d. The input of the discriminator is mainly sample data provided by the generator.
Ans: AD

194. Which of the following statements are true about tensors?
a. The most basic data structure in TensorFlow is tensor
b. A first-order tensor can be considered as vector
c. A tensor is a data matrix
d. A tensor is a generalization based on the vector and matrix
Ans: ABD

195. In TensorFlow 2.0, which of the following cannot be used to create an all-zero tensor?
a. tf.zeros()
b. tf.fill([1],0)
c. tf.zeros_frame()
d. tf.zeros_tuple()
Ans: CD

196. Which of the following use the Da Vinci Architecture?
a. Ascend 310
b. RTX3080
c. Kunpeng 920

d. Ascend 910
Ans: AD

197. Which of the following are supported by data management on ModelArts?
a. A wide range of data formats
b. Team labelling
c. Intelligent data filtering
d. Automatic data migration
Ans: ABC

198. Which of the following format conversion operations are not performed by the storage control unit of the Da Vinci Architecture?
a. Zero padding and transposition
b. Video stream compression
c. Color space conversion
d. Ima2Col
Ans: BC

199. Which of the following are model hyperparameters?
a. Learning rate, iteration count, and batch size in a training neural network
b. K in the k-nearest neighbors(KNN) algorithm
c. Number of trees in a random forest
d. Weight coefficient w in liner regression
Ans: ABC

200. Which of the following statements are true about using OCR to train an invoice recognition model with the support of a dedicated AI processor?
a. Training requires a large amount of data
b. Supervised learning is often used
c. The processor has demanding requirements on the computing power
d. The trained model may be a complex deep neural network
Ans: ABCD

201. Which of the following are the features of the Speech Interaction Service (SIS) provided by HUAWEI CLOUD EI?
a. Multiple (more than 3) languages
b. High usability
c. Low requirement
d. Low labour cost
Ans: BCD

202. Which of the following are part of the Huawei full-stack AI solution?
a. TBE
b. openEuler
c. AscendCL
d. Ascend
Ans: ACD

203. Which of the following statements are false about the universal engine of the Ascend 310 software stack?

a. Provides general capabilities needed for neural network training
b. Provides compute resources and executes specific computing tasks
c. Provided compute resources for Ascend AI
d. Outputs tasks at the operator layer for hardware

Ans: ABCD

204. Which of the following statements are false about TensorFlow?

a. TensorFlow can only be used in a deep learning algorithm
b. TensorFlow supports only GPUs and CPUs
c. TensorFlow 2.0 uses the dynamic graph mechanism by default, with a higher running efficiency than the static graph mechanism
d. TensorFlow 1.0 uses the graph-session mechanism

Ans: ABC

205. Which of the following are major advantage of Keras?

a. Easy to use
b. Low-level coding style
c. Modular and combinable
d. Easy to scale

Ans: ACD

206. Which of the following statements are true about gradient descent?

a. SGD randomly chooses samples for each training job, causing unstability. As a result, the loss function fluctuates or even encounters reverse displacements during the process of dropping to the minimum value
b. BGD is the most unstable method and consumes too many computer resource
c. MBGD is a balance between BGD and SGD, and is the optimal choice for all dataset
d. BGD uses all samples for each training

Ans: ACD

207. Generally, a model with a () volume has a higher precision, and a model with a () volume has a high efficiency.

Ans (1) large
Ans (2) small

208. Tensor[[[2,3]]] is a/an ()-dimensional tensor

Ans: 3

209. In MindSpore, if you want to define a function for collecting information after each step is complete, you need to inherit () class.

Ans: Callback.callback

210. In MindSpore Python APIs, mindspore.() provides various neural network layers

Ans: nn

211. ModelArts ExeML is the process of automating model design, parameter tuning, model training, compression, and model deployment, () (requiring or not requiring) coding and model development experience not requiring

Ans: Not requiring

212. At a convolution layer, there are 256 5X5 convolution kernels, the size of an input feature map is 32X32X5, the convolution step is 2, and zero padding is employed(padding size=1). So, the size of the output feature map is ()*()*(). 15 x 15 x 256

Ans: 15*15*256

SLS → don't sp multiple languages.

RNN → same weight on same layer. (U, V, W)

activation func ↳ direction → underlying feature → over-fit

tree in random forest can limit neuron

Exam : H13-311_V3.0

Title : HCIA-AI V3.0 Exam

Vendor : Huawei

Version : V12.95

as a can prune pre/post-pruning

high train low test ↓ overfit.

ModelArts ↓ no data migration

weight (w) is a func or var ↑ parameter.

Tree model used at bot lyr of RF / GBDT → is not the classification & regression tree (CART)

softsign over sigmoid → The out is zero-centered

→ max derivative 0.5

→ Gradient saturation slow down

QUESTION NO: 1
Tensorflow Operations and Computation Graph are not - run in the Session
A. True
B. False
Answer: B

↳ in session · to execute an operation and retrieve its calculated value.

QUESTION NO: 2
What is in the category of artificial intelligence? (Multiple choice)
A. Action
B. Perception
C. Cognition
D. None of the above
Answer: A,B,C

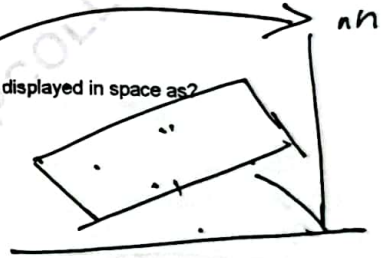
GRU → RNN
↳ GRU combines the forget & update gate to single input

QUESTION NO: 3
Traffic agent can achieve () Hour full time/Global traffic awareness?
A. 7×24
B. 5×24
C. 5×12
D. 7×12
Answer: A

24/7

RNN → solution for forget use LSTM & GRU

QUESTION NO: 4
The perceptron can be displayed in space as?
A. line
B. flat
C. Hyperplane
D. point
Answer: C



unlike LSTM & GRU · merges the cell state & hidden state.

QUESTION NO: 5
In random forest, what strategy is used to determine the outcome of the final ensemble model?
A. Cumulative system
B. Find the average
C. Voting system
D. Cumulative system
Answer: B,C

GRU assembles the out & the prev timestep w th inp of curr timestep

QUESTION NO: 6
What are the scenarios or industries that are suitable for using Python? (Multiple Choice)
A. Artific1al intelligence
B. web development

dist → noise & sample

GAN → framework use adversarial → BP.
→ NO → discriminator inp noise & real sample data.
→ dismainly sample data by gen.

C. Game development
D. Hardware development
Answer: A,B,C

QUESTION NO: 7
In a convolutional neural network, different layers have different functions. Which of the following layers can play the role of dimensionality reduction?
A. Input layer
B. Fully connected layer → features from conv & pool are straightened.
C. Convolutional layer → take inp to out
D. Pooling layer → reduce size
Answer: B,C,D

QUESTION NO: 8
Vector is a number.
A. True
B. False
Answer: B

QUESTION NO: 9
Among the following properties TensorFlow2.0 Does not support creation tensor. The method is?
A. zeros
B. fill
C. create
D. constant
Answer: C

QUESTION NO: 10
What is the English abbreviation for AI?
A. Automatic Intelligence
B. Artifical Intelligence
C. Automatic Information
D. Artifical Information
Answer: B

QUESTION NO: 11
Which of the following are included in the application scenarios ofTensorflow? (Multiple choice)
A. Speech recognition
B. Face recognition
C. Image style changes
D. Autopilot

Answer: A,B,C,D

QUESTION NO: 12
In neural networks, which of the following methods are used to update the parameters when training the network to minimize the loss function?
A. Forward propagation algorithm → to get output
B. Pooling calculation
C. Convolution calculation
D. Backpropagation algorithm → to get error in each neuron
Answer: D

QUESTION NO: 13
On the premise of ensuring data privacy and security, federated learning utilizes different data sources to cooperatively train models to improve breakthroughs in data bottlenecks.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 14
What are the implementation modes ofTensorflow? (Multiple Choice)
A. Stand-alone mode
B. Distributed mode
C. Reverse mode
D. Forward mode
Answer: A,B

QUESTION NO: 15
Cut-off 2019 At the end of the year,TensorFlow The released versions are?
A. 1
B. 2
C. 1.2
D. 0.1
Answer: A,C,D

QUESTION NO: 16
TensorFlow 2.0 The way to view tensor dimensions in is?
A. dimens → no tf.3.
B. dtype → get type
C. ndim → neuron dimensions.
D. device
Answer: C

QUESTION NO: 17
On-Device Execution, that is, the entire image is offloaded and executed, and the computing

power of the Yiteng chip can be fully utilized, which can greatly reduce the interaction overhead, thereby increasing the accelerator occupancy rate. On-Device The following description is wrong?

A. MindSpore Realize decentralized autonomy through adaptive graph optimization driven by gradient data A11 Reduce, Gradient aggregation is in step, and calculation and communication are fully streamlined

B. Challenges of model execution under super chip computing power: Memory wall problems, high interaction overhead, and difficulty in data supply. Partly in Host Executed, partly in Device Execution, interaction overhead is even much greater than execution overhead, resulting in low accelerator occupancy

C. MindSpore Through the chip-oriented depth map optimization technology, the synchronization wait is less, and the "data computing communication" is maximized. The parallelism of "trust", compared with training performance Host Side view scheduling method is flat

D. The challenge of distributed gradient aggregation under super chip computing power:ResINet50 Single iteration 20ms Time will be generated The synchronization overhead of heart control and the communication overhead of frequent synchronization. Traditional methods require 3 Synchronization completed A11 Reduce, Data-driven method autonomy A11 Reduce, No control overhead

Answer: C

QUESTION NO: 18

Huawei's chip support HUAWEI HiAI Which module of?

A. HiAI Engine

B. HiAI Foundation

C. HiAI Framework

D. HiAI Service

Answer: B

QUESTION NO: 19

PyTorch All existing versions support Python2 with Python3?

A. TRUE

B. FALSE

Answer: B

↳ only python 3.7~3.9.

QUESTION NO: 20

It is known that the total parameter of a certain layer of the fully connected neural network is 330,The number of neurons in the previous layer and this layer May be?

A. 32 with 10

B. 10 with 33

C. 33 with 10

D. 9 with 33

Answer: B,C

QUESTION NO: 21

What model is not a cyclic neural network?

A. RNN

B. LSTM

C. GBOT

D. GRU → Gating mechanism ✗

Answer: C

QUESTION NO: 22

The current technology application directions of artificial intelligence mainly include?

A. Natural language processing

B. Control System

C. Computer vision

D. Speech Recognition

Answer: A,C,D

QUESTION NO: 23

Which of the following are the characteristics of TensorFlow? (Multiple choice)

A. Open source

B. Convenience

C. Mature

D. Flexible

Answer: A,B,C,D

QUESTION NO: 24

Which of the following description of the number of rows and columns of the matrix is correct?

A. The number of rows 1s greater than the number of columns ✗

B. The number of rows 1s equal to the number of columns ✗

C. The number of rows is less than the number of columns ✗

D. The number of rows has no relationship with the number of columns. ✓

Answer: D

QUESTION NO: 25

Feedforward neural network is a simple neural network, each neuron is arranged hierarchically, it is currently one of the most widely used and fastest growing artificial neural networks. The following statement about feedforward neural networks is correct:

A. Neurons with computing power are connected to the upper and lower layers

B. Its input node has computing power

C. Connecting neurons in the same layer → diffr layr

D. Information only along-Pass through

Answer: D

left to right.

~~left~~ X → in the layers.

↳ pass through the layers.

QUESTION NO: 26
View Atlas300 (3000) Which command should be used if the accelerator card driver is installed successfully?
A. npu-sim info
B. npu info
C. atlas-driver info
D. atlas info
Answer: A

QUESTION NO: 27
Facing industry research and full scenarios AI The huge gap between applications, MindSpore Bridging the application gap to help inclusiveness AI Of technological innovation does not include which of the following?
A. New ways of collaboration
B. New programming language
C. New programming paradigm
D. New execution mode
Answer: B

QUESTION NO: 28
X. Y are random variables. C is a constant. which of the following description about the nature of the mathematical expectation is incorrect?
A. E(C) = CA. E(C) = C
B. E(X+Y) = E(X)+E(Y)
C. E(CX) = CE(X)
D. E(XY) = E(X)E(Y)
Answer: D

QUESTION NO: 29
Which of the following schools does the neural network study belong to?
A. Symbolism
B. Connectionism
C. Behaviorism
D. None of the above
Answer: B

QUESTION NO: 30
Artificial intelligence is the research and development of theories, methods and application systems used to simulate, extend and expand human intelligence Of a new technological science.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 31
Which method is not supported in TensorFlow to define variables?
A. Random number
B. Constant
C. Calculated from the initial values of other variables
D. null
Answer: D

QUESTION NO: 32
Deflated AI The logical architecture of the processor does not include which of the following options?
A. DVPP
B. GPU
C. AI Calculation engine
D. Chip system control CPU
Answer: B

QUESTION NO: 33
There are many commercial applications for machine learning services.
What are the main business scenarios covered? (Multiple Choice)
A. Financial product recommendation
B. Predictive maintenance
C. Telecom customer retention
D. Retailer grouping
Answer: A,B,C,D

QUESTION NO: 34
In the process of training the neural network, we use the gradient descent method to continuously update which value, which makes the loss Function minimization?
A. Number of samples
B. Eigenvalues
C. Hyperparameter
D. parameter
Answer: D

QUESTION NO: 35
In the process of deep learning model training, what are the common optimizers?
A. Adam
B. Adagrad
C. SGD
D. Momentum
Answer: A,B,C,D

QUESTION NO: 36
Python tuples are identified by "()" and internal elements are separated by ":".
A. True
B. False
Answer: B

QUESTION NO: 37
Only matrix A and matrix B have the same number of rows and columns. A and B can be added.
A. True
B. False
Answer: A

QUESTION NO: 38
Which of the following can improve the computational efficiency of the neural network model? (Multiple choice)
A. TPU
B. GPU
C. FPGA
D. Large-scale distributed cluster
Answer: A,B,C,D

QUESTION NO: 39
"print" in Python 3 must be used with "()"
A. True
B. False
Answer: A

QUESTION NO: 40
What are the mainstream deep learning open source tools? (Multiple choice)
A. TensorFlow
B. Caffe
C. Torch
D. Theano
E. Scikit..Jeam
Answer: A,B,C,D

QUESTION NO: 41
TensorFlow It is one of the most popular deep learning frameworks.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 42

Which of the following is the computing model of TensorFlow?
A. Calculation chart
B. Tensor
C. Conversation
D. Variable
Answer: A

QUESTION NO: 43
In neural networks, weights are often shareD. Which of the following neural networks will share weights?
A. sensor
B. Convolutional Neural Network
C. Fully connected neural network
D. Recurrent neural network
Answer: B,D

QUESTION NO: 44
Deep learning makes it easy to derive simple mathematical functions from a large amount of high-dimensional data to describe complex decision interfaces.
A. True
B. False
Answer: B

QUESTION NO: 45
Traditional machine learning and deep learning are the core technologies of artificial intelligence. There is a slight difference in the engineering process. The following steps. What you don't need to do in deep learning is:
A. Model evaluation
B. Feature engineering
C. Data cleaning
D. Model building
Answer: B

QUESTION NO: 46
The Python dictionary is identified by "{}", and the internal data consists of the key and its corresponding value.
A. True
B. False
Answer: A

QUESTION NO: 47
Convolutional neural networks are more suitable for image recognition problems than cyclic neural networks.
A. True

B. False
Answer: A

QUESTION NO: 48
Where is the main foothold of symbolism?
A. The foothold is in neuron networks and deep learning.
B. The foothold is reasoning, symbolic reasoning and machine reasoning.
C. The foothold is perception and action.
D. The foothold is behavior control, adaptive and evolutionary computing.
Answer: B

QUESTION NO: 49
When training the network, we often encounter many problems. For the problem of gradient disappearance, we can alleviate the problem by choosing which of the following functions to use?
A. Softsign function
B. Relu function
C. tanh function
D. Sigmoid function
Answer: B

QUESTION NO: 50
During application development, which of the following operations is not a typical network definition?
A. Network definition
B. Network execution
C. Knowledge distillation
D. Weight initialization
Answer: C

QUESTION NO: 51
Which of the following description of the validation set is wrong?
A. The verification set can coincide with the test set.
B. The test set can coincide with the training set
C. The subset used to pick hyperparameters is called a validation set
D. Typically 80% of the training data 1s used for training and 20% 1s used for verification.
Answer: A

QUESTION NO: 52
Which of the following functions can numerically stabilize overflow and underflow?
A. Softminus function
B. Softplus function
C. Soft max function

D. Softmin func!Jon
Answer: C

QUESTION NO: 53
The loss function of logistic regression is the cross-entropy loss function.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 54
What are the common clustering algorithms?
A. Density clustering
B. Hierarchical clustering
C. Spectral clustering
D. Kmeans
Answer: A,B,C,D

QUESTION NO: 55
Python script execution mode includes interactive mode and script mode
A. True
B. False
Answer: A

QUESTION NO: 56
The loss function reflects the error between the target output and actual output of the neural network. The commonly used loss function in deep learning is:
A. Exponential loss function
B. Mean square loss function
C. Log loss function
D. Hinge Loss function
Answer: B

QUESTION NO: 57
The model composed of machine learning algorithms cannot represent the true data distribution function on a theoretical level. Just approach it.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 58
About the image content review service returned when the call is successful suggestion Field, the correct statement is?
A. pass Representative does not contain sensitive information, passed
B. review The representative needs a manual review

C. suggestion The field represents whether the test passed
D. block Representative contains sensitive information and does not pass
Answer: A,B,C,D

QUESTION NO: 59
HUAWEI HiAI What are the supported models?
A. P30
B. Mate 20
C. glory V20
D. iPhone10
Answer: A,B,C

QUESTION NO: 60
The meaning of artificial intelligence was first proposed by a scientist in 1950, and at the same time a test model of machine intelligence was proposed Who is this scientist?
A. Minsky
B. Zade
C. Turing
D. Von Neumann
Answer: C

QUESTION NO: 61
Which of the following services belong to Huawei EI Service family?
A. Dialogue robot
B. EI Basic services
C. Natural language processing
D. EI Big data service
Answer: A,B,C,D

QUESTION NO: 62
Which of the following descriptions of the depth feedforward network is correct?
A. Deep feedforward network 1s a kind of neural network.
B. The deep feedforward network has ~~only one~~ hidden layer. ← 1 or 2 ✓
C. The unit on the hidden layer of the deep feedforward network will have ~~countless.~~
D. Deep feedforward network 1s used to deal with linear problems.
Answer: A

NN.

QUESTION NO: 63
What is the incorrect relationship between neural networks and deep learning?
A. The concept of deep learning sterns from the study or artificial neural networks. ✓
B. A neural network algorithm with multiple hidden layers is a deep learning algorithm ✓
C. Single layer neural networks are also a type of deep learning
D. Convolutional neural networks are a type of deep learning. ✓

Answer: C

QUESTION NO: 64
What is the performance of artificial intelligence in the stage of perceptual intelligence?
A. Machines begin to understand, think and make decisions like humans
B. Machines begin to calculate and transmit information just like humans
C. The machine starts to understand and understand, make judgments, and take some simple actions
Answer: C

distinguish real / fake. ↑ GAN.

QUESTION NO: 65
In which year was the first introduction of "artificial intelligence"?
A. 1946
B. 1960
C. 1916
D. 1956
Answer: D

QUESTION NO: 66
Which of the following is true about unsupervised learning?
A. Unsupervised algorithm only processes "features" and does not process "tags"
B. Dimensionality reduction algorithm is not unsupervised learning
C. K-means algorithm and SVM algorithm belong lo unsupervised learning
D. None of the above
Answer: A

given input (features) & is asked to find / ~~discover~~ ↑ patters w/o tags (labels.

can be applied to both super/ unsuper & don't make the algo unsupervised

→ require labeled data. to train.

QUESTION NO: 67
The following belongs to TensorFlow2.0 The characteristic is?
A. Introduce Keras interface
B. Support static image mechanism
C. Support more platforms and more languages
D. Continue to be compatible Tensorflowl.x Related modules
Answer: A,C,D

QUESTION NO: 68
The training error will continue to decrease as the model complexity increases.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 69
HiAI What are the advantages of mobile computing platforms?
A. Quick source code
B. Diverse tool chain

C. Complete documentation
D. plentiful API
Answer: A,B,C,D

QUESTION NO: 70
Which of the following statement about the matrix is incorrect?
A. The arbitrary matrix is multiplied by the unit matrix and will not change.
B. The transpose of the symmetric matrix A 1s also A itself.
C. The transpose of the orthogonal matrix A is equal to the inverse of A .
D. There is no inverse matrix for the diagonal matrix.
Answer: D

QUESTION NO: 71
In the environment preparation for invoking HUAWEI CLOUD services, which of the following does not require confirmation of installation?
A. requests
B. setuptools
C. websocket-client
D. Jieba
Answer: D

QUESTION NO: 72
In the classic convolutional neural network model,Softmax What hidden layer does the function follow?
A. Convolutional layer
B. Pooling layer
C. Fully connected layer
D. All of the above
Answer: C

QUESTION NO: 73
ModelArts Service and (). The combination of services can easily deploy the model to "end"?
A. OBS
B. OCR
C. ECS
D. HiLens
Answer: D

QUESTION NO: 74
With a lot of sales data but no labels, companies want to identify VIP Customer, the following model Suitable?
A. Logistic regression → supervised
B. SVM → need label

C. K-Means → unsupervised → clustering
D. Hierarchical clustering → unsupervised → the dendrogram
Answer: C,D

QUESTION NO: 75
The naive Bayes algorithm does not require independent and identical distribution among sample features.
A. TRUE
B. FALSE
Answer: B

naive Bayes algo is all features are independent & no occurance of 1 feature has no effect on the other.

QUESTION NO: 76
Which of the following statements about supervised learning is correct?
A. Decision tree is a supervised learning
B. Supervised learning cannot use cross-validation for training
C. Supervised learning is a rule-based algorithm
D. Supervised learning can be trained without labels
Answer: A

QUESTION NO: 77
The commonly used functions for mathematical operations in Python are basically in lhe math module and the cmath module.
A. True
B. False
Answer: A

QUESTION NO: 78
The constituent elements of the Python identifier include: numbers, letters, and underscores.
A. True
B. False
Answer: A

QUESTION NO: 79
Jobs that are repetitive and require weak social skills are the easiest to be AI Replaced work.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 80
What are the commonly used loss functions? (Multiple choice)
A. Mean variance
B. Sigmoid cross entropy
C. Soft max cross enl10py
D. Sparse cross entropy

E. Weighted S1gmo1d Cross Entropy
Answer: A,B,C,D,E

QUESTION NO: 81
If the deep learning neural network has the problem of gradient disappearance or gradient explosion, our common solution is.
A. Gradient shear
B. Random undersampling
C. Use Relu Activation function
D. Regularization
Answer: A,C,D

balance dataset so not 1 type can be more detected than the other.

QUESTION NO: 82
In deep learning tasks, when encountering data imbalance problems, which of the following methods can we use to solve the problem?
A. batch deletion
B. Random oversampling
C. Synthetic sampling
D. Random undersampling
Answer: B,C,D

QUESTION NO: 83
In deep learning, if the neural network has a large number of layers, the problem of gradient disappearance is more likely to occur. Strictly speaking, in which of the following links does the sample disappearance problem occur?
A. Backpropagation update parameters
B. Forward the dream and update
C. Backpropagation calculation result
D. Forward calculation results
Answer: A

The vanishing gradient problem can occur during the backprop phase, where the gradient of the loss with respect to the network params are computed. When the gradient are very small it can be hard to update the params leading to slow & ineffective training

QUESTION NO: 84
The number or matrix is stored in the tensor
A. True
B. False
Answer: B

QUESTION NO: 85
Bagging In integrated learning, the relationship between each base learner is?
A. Additive relationship
B. relationship
C. The latter model must be built on top of the previous model
D. Independent

→ ensamble learning → bagging & boosting can help prevent overfitting. By voting & averaging multiple models.

Answer: B

QUESTION NO: 86
Generating a confrontation network is like a game system. The generator generates fake samples, and the discriminator judges whether it is true or false. Our ideal result is?
A. The generator produces roughly the same samples
B. The discriminator efficiently distinguishes the true and false samples generated by the generator
C. The discriminator cannot distinguish the true and false samples generated by the generator
D. The generator produces different samples
Answer: C

GAN

QUESTION NO: 87
What quotation marks can the Python language use? (Multiple Choice)
A. Single quotes
B. Double quotes
C. Three quotes
D. Four quotes
Answer: A,B,C

QUESTION NO: 88
Faced with the challenge of achieving efficient distributed training for ultra-large-scale models, MindSpore is handled as?
A. Automatic parallel
B. Serial
C. Manual parallel
Answer: A

QUESTION NO: 89
'Reducing the gap between the training error and the test error will result in over-fitting How to prevent over-fitting? (Multiple Choice)
A. Cross validation → evaluate the performance of model by dividing the data to subset & train on 1 subset and evaluating there as well
B. Integration method
C. Increase regularization → penalty term, so don't fit too closely
D. Feature Engineering → selecting & transforming the inp feature to provide the model w a more appropriate represent. of the data & remove redundant features
Answer: A,B,C,D

QUESTION NO: 90
Which of the following are the characteristics of the Python language? (Multiple choice)
A. Explanatory
B. Process oriented
C. Object-oriented

SGD & MBGD.

D. Dynamic data type
Answer: A,C,D

QUESTION NO: 91
PyTorch Which of the following functions does not have?
A. Inline keras → tf.
B. Support dynamic graph
C. Automatic derivative
D. GPU accelerate
Answer: A

QUESTION NO: 92
The optimizer is an important part of training neural networks. The purpose of using the optimizer does not include which of the following:
A. Speed up algorithm convergence
B. Reduce the difficulty of manual parameter setting
C. Avoid overfitting
D. Avoid local extremes
Answer: C

QUESTION NO: 93
What are the service categories included in Huawei Cloud EI Enterprise Intelligence? (Multiple Choice)
A. EI visual cognition
B. EI online games
C. EI speech semantics
D. EI industry scene
Answer: A,C,D

QUESTION NO: 94
Computer vision is the study of how to make computers "see".
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 95
MSIR It is a simple, efficient and flexible graph-based function IR, A functional semantic type that can be represented Have?
A. Free variable
B. Higher order function → take a func and out another func.
C. Interrupt
D. Recursion → func calls itself.
Answer: A,B,D

SIR → used to select relevant features in high-dimensional data-set.

a var that's not bound to a value specific

Model-based Sliced Inverse Regression.
↳ dim reduction based on Gaussian finite mixture models which provides an extension to sliced inverse regression.

QUESTION NO: 96
What is wrong description of the normal distribution?
A. In natural phenomena and social phenomena, many random variables obey or approximate a normal distribution.
B. The normal distribution takes the maximum value at the mean
C. The larger the standard deviation the steeper the normal distribution curve
D. The larger the standard deviation, the slower the normal distribution curve.
Answer: C

mean.
↑ SD.

QUESTION NO: 97
About Python correct tuple, which is correct description? (Multiple choice)
A. The difference between a list and a tuple is that the elements of the tuple cannot be
B. The list uses square brackets and the tuple uses parentheses
C. Tuple creation is very simple just add elements in parentheses and separate them with commas
D. When a tuple contains only one element you need to add a comma after the element
Answer: A,B,C,D

list → ["a", "b", "c"]
tuple → ("a", "b", "c")

QUESTION NO: 98
TensorFlow The data type used is?
A. Scalar
B. Vector
C. Tensor
D. Matrix
Answer: C

QUESTION NO: 99
There are many types of neural networks in deep learning. The following neural network information is one-way propagation.
A. LSTM
B. Convolutional Neural Network → feed forward.
C. Recurrent neural network → sequential
D. GRU
Answer: B

QUESTION NO: 100
TensorFlow2.0 of keras.metrics The methods that are not included in the built-in indicators are?
A. Accuracy
B. Recall
C. Sum
D. Mean
Answer: C

QUESTION NO: 101
TensorFlow in keras The built-in optimizer of the module has?
A. Adam
B. SGD
C. Adaboost
D. Adadelta
Answer: A,B,C,D

QUESTION NO: 102
Huawei AI The full scenarios include public cloud, private cloud, various edge computing, IoT industry terminals, and consumer terminals and other end, edge, and cloud deployment environments.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 103
Voice recognition refers to the recognition of audio data as text data.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 104
The correlation coefficient, also known as the linear correlation coefficient, is used to measure the linear relationship between two variables, which is a real number greater than zero
A. True
B. False
Answer: B

QUESTION NO: 105
In polynomial regression, there is a square term in the formula of the model, so it is not linear .
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 106
The test error will keep getting smaller as the complexity of the model increases.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 107
GAN is a deep learning model and one of the most promising methods for unsupervised learning in complex distribution in recent years.
A. True
B. False
Answer: A

QUESTION NO: 108
The number of rows and columns of the three matrices A , B and C is 3 rows and 2 columns, 2 rows. 3 columns. 3 rows and 3 columns. which of the following operations is meaningful?
A. AC
B. BC
C. A+B
D. AB-BC
Answer: B

QUESTION NO: 109
Which of the following about the gradient descent is incorrect?
A. Random gradient descent is a commonly used one in gradient descent.
B. Gradient descent includes random gradient descent and batch gradient descent.
C. The gradient descent algorithm 1s fast and reliable [Right Answers}
D. Random gradient descent is one of the commonly used optimization algorithms in deep learning algorithms.
Answer: C

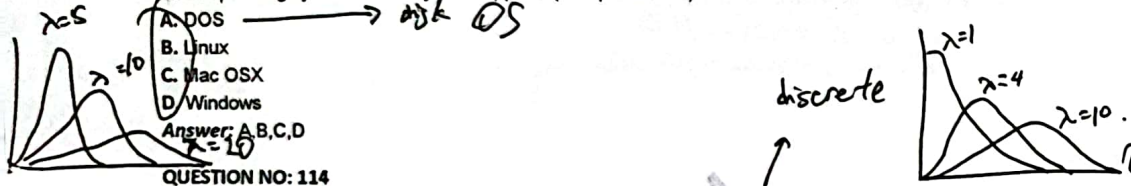
QUESTION NO: 110
What are the commonly used activation functions? (Multiple Choice)
A. sigmoid
B. tanh
C. relu
D. danish
Answer: A,B,C

QUESTION NO: 111
Python is a fully object-oriented language. Which of the following options belong to the Python object? (Multiple Choice)
A. Function
B. Module
C. Number
D. Character string
Answer: A,B,C,D

QUESTION NO: 112

The label predicted by the regression algorithm is?
A. Self-deformation
B. Discrete
C. Strain type
D. Continuous
Answer: D

QUESTION NO: 113
What operating systems does Python support? (Multiple Choice)
A. DOS
B. Linux
C. Mac OSX
D. Windows
Answer: A,B,C,D



QUESTION NO: 114
Which of the following description about the relationship between the Poisson distribution and the binomial distribution is correct?
A. The mathematical model of the Poisson distribution and the binomial distribution are both Lagrangian models.
B. Poisson d1stnbutJon 1s an approx1mallon of the bmom1al d1stnbubon when n 1s very large and p 1s small (
C. Poisson distribution has no relationship with binomial distribution
D. Poisson distribution can replace binomial distribution
Answer: B

QUESTION NO: 115
Huawei AI The whole scenario includes public cloud, private cloud, various edge computing, IoT industry terminals and consumer. The deployment environment of terminal, edge, and cloud for fee-based terminals.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 116
Which of the following conditions is not a condition that n-fold bernoulli trials needs to meet?
A. Each test was repeated under the same conditions.
B. There are only two possible outcomes for each trial, i.e. event A occurs and event A does not occur.
C. Each test itself is obeying normal distribution
D. The results of each trial are independent of each other.
Answer: C

QUESTION NO: 117

The face detection service will report an error when there is no face in the test image.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 118
HUAWEI HiAI Engine Can easily combine multiple AI Ability and App integrated.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 119
Which of the following does not belong to automatic hyperparameter optimization algorithm?
A. Grid search
B. Random gradient descent
C. Random search
D. Model-based hyper parameter optimization
Answer: B

QUESTION NO: 120
After the data has completed the feature engineering operation, in the process of constructing the model, which of the following options is not a step in the decision tree construction process?
A. Pruning
B. Feature selection
C. Data cleaning
D. Decision tree generation
Answer: C

QUESTION NO: 121
What does factors that promote the development of artificial intelligence not include?
A. Big data
B. Computing ability
C. Algorithm theory
D. Block chain
Answer: D

QUESTION NO: 122
The following are the description of the distribution function. distribution law. and density function of random variables.
which is incorrect?
A. Distribution law can only describe the value rule of discrete random variables
B. The density function can only describe the value rule of continuous random variables
C. Discrete random variables have no d1slribulion function

D. Distribution function describes the value rule of random variables
Answer: C

QUESTION NO: 123
In machine learning, what input the model needs to train itself and predict the unknown?
A. Manual procedure
B. Neural Networks
C. Training algorithm
D. historical data
Answer: D

QUESTION NO: 124
The pooling layer in the convolutional neural network can reduce the size of the lower layer input. Common pooling is:
A. Minimum strata
B. Product pooling layer
C. Maximum pooling layer
D. Average pooling layer
Answer: C,D

QUESTION NO: 125
As the following, what are the Python language design philosophy? (Multiple Choice)
A. Beautiful
B. Expensive
C. Explicit
D. Simple
Answer: A,C,D

QUESTION NO: 126
What does not belong to supervised learning?
A. Logistic regression
B. Support vector machine
C. Decision tree
D. Princi1pal component analysis
Answer: D

QUESTION NO: 127
During the two classification process, we can set any category as a positive example.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 128
Which of the following does not belong to long-term memory LSTM (long Short*Term

Memory) network architecture?
A. Memory door
B. Forget the door
C. Input door
D. Output door
Answer: A

QUESTION NO: 129
In May 1997, the famous "Human-Machine Wars" final computer defeated Kasparov, the world chess king, with a total score of 3.5 to 2 5. is this computer called?
A. Dark blue
B. Dark green
C. Ponder
D. Blue sky
Answer: A

QUESTION NO: 130
The continue statement in the Python language is used to jump out of this loop and then continue to execute the next round of statements.
A. True
B. False
Answer: A

QUESTION NO: 131
Huawei Cloud EI builds enterprise intelligence services based on three-tier services. Which of the following options does not belong to Layer 3 services?
A. Basic platform services
B. General domain services
C. Industry sector services
D. Integration services
Answer: D

QUESTION NO: 132
Which of the following options is not central to linear algebra?
A. Probability theory
B. Linear transformation
C. Matrix theory
D. Vector space
Answer: A

QUESTION NO: 133
In supervised learning," Those who are near Zhu are red and those who are near Mo are black"is used to describe which of the following models?
A. K-Means

B. SVM
C. KNN
D. Neural Networks
Answer: C

QUESTION NO: 134
There are a lot of data generated during the training of the neural network.
What mechanism does TensorFlow use to avoid excessive input data?
A. Client
B. feed
C. placeholder
D. fetch
Answer: C

QUESTION NO: 135
TensorFlow2.0 The methods that can be used for tensor merging are?
A. join
B. concat
C. split
D. unstack
Answer: B

QUESTION NO: 136
Which of the following options belong to Tensorflow concept? (Multiple Choice)
A. Tensor
B. Variables
C. Placeholder
D. Operation
E. Conversation
Answer: A,B,C,D,E

QUESTION NO: 137
Python authors deliberately design very restrictive grammars that make bad programming habits (such as the next line of if statement not indented to the right) cannot be compiled
A. True
B. False
Answer: A

QUESTION NO: 138
Which of the following about the description of the number of rows and columns for the determinant is correct?
A. The number of rows 1s greater than the number of columns
B. The number of rows 1s equal lo the number of columns

C. The number of rows is less than the number of columns
D. The number of rows has no relationship with the number of columns.
Answer: B

QUESTION NO: 139
From the labeled historical data, we can predict that the retail sales of the next quarter will be in 20-30 Wan still 30-40 Ten thousand", What is the problem?
A. Regression problem
B. Rule problem
C. Classification problem
D. Clustering problem
Answer: C

QUESTION NO: 140
HUAWEI CLOUD ModelArts Is for AI Which of the following functions are in the developed one-stop development platform Mode1Arts Can have?
A. Data governance
B. AI market
C. Visual workflow
D. Automatic learning
Answer: A,B,C,D

QUESTION NO: 141
Atlas 200 DK Yiteng 310 The main application of the chip is?
A. Model reasoning
B. Build model
C. Training model
Answer: A

QUESTION NO: 142
What are the advantages of Python? (Multiple choice)
A. Simple
B. Free
C. High-level language
D. Rich library
Answer: A,B,C,D

QUESTION NO: 143
According to the development process of the robot, it is usually divided into three generations, respectively are: (Multiple Choice)
A. Teaching Reproduction Robot
B. Robot with sensation
C. Robots that will think

D. Intelligent robot
Answer: A,B,D

QUESTION NO: 144
As shown in the figure below, what is the value of the determinant A?

$$A = \begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{vmatrix}$$

A. 24
B. 18
C. -24
D. 0
Answer: D

QUESTION NO: 145
Which of the following descriptions about Python program are correct? (Multiple choice)
A. The program consists of modules
B. Module contains statements
C. statement contains an expression
D. Expressions create and process objects
Answer: A,B,C,D

QUESTION NO: 146
Which of the following is not MindSpore common Operation?
A. signal
B. math
C. nn
D. array
Answer: A

QUESTION NO: 147
Linear algebra is a branch of algebra that deals with linear problems.
The linear relationship is that the relationship between exponential objects is expressed in ( ) times form?
A. 1
B. 2
C. 3
D. 4
Answer: A

QUESTION NO: 148

TensorFlow is Google's first generation of proprietary machine learning systems
A. True
B. False
Answer: B

QUESTION NO: 149
What are the core concepts in TensorFlow? (Multiple Choice)
A. Gridding
B. Calculation Chart
C. Dot Product
D. Tensor
Answer: B,D

QUESTION NO: 150
According to the American Society of Automotive Engineers (SAE) The automatic driving is divided into Which level?
A. L1~L4
B. L1~L5
C. L0~L4
D. L0~L5
Answer: D

QUESTION NO: 151
The main computing resources included in the Da Vinci architecture computing unit are?
A. Vector calculation unit
B. Scalar Computing Unit
C. Tensor computing unit
D. Matrix calculation unit
Answer: A,B,D

QUESTION NO: 152
Which of the following is not a way for the TensorFlow program to read data?
A. Preload data
B. Feeding data
C. Read from the file
D. Write a file format reader
Answer: D

QUESTION NO: 153
Which of the following statements about universal form recognition services are correct?
A. rows Represents the line information occupied by the text block, the number is from 0 Start, list form
B. colums Represents the column information occupied by the text block, the number is from

0 Start, list form
C. The incoming image data needs to go through base64 coding
D. words Representative text block recognition result
Answer: A,B,C,D

QUESTION NO: 154
Which of the following libraries are installed Atlas300 (3000)Install the accelerator card in the server DDK (Device Development Kit) What needs to be installed before?
A. decorator
B. setuptools
C. numpy
D. tensorflow → if use will run slow as it runs only on the control CPU.
Answer: A,B,C

QUESTION NO: 155
Tensor Yes MindSpore The storage component of the data.
A. TRUE
B. FALSE
Answer: A
↳ data in Mindspore is stored in tensors.

QUESTION NO: 156
Training error will reduce the accuracy of the model and produce under-fitting. How to improve the model fit? (Multiple choice)
A. Increase the amount of data
B. Feature Engineering
C. Reduce regularization parameters → if over then reduce
D. Add features
Answer: A,B,D

QUESTION NO: 157
TensorF1ow Which of the following companies first developed?
A. Oracle
B. Facebook
C. Nvidia
D. Google
Answer: D

QUESTION NO: 158
TensorFlow2.0 of keras.preprocessing The role is?
A. keras Data processing tools
B. keras Built-in optimizer
C. keras Model deployment tool
D. Keras Generative model tool

L2 → Ridge, use penalty to ~~perform~~ discourage the use of large weight. & NOT feature selection.
↑ squared magnitude of weight coeff.

Answer: A

QUESTION NO: 159
Deep learning is a branch of machine learning
A. True
B. False
Answer: A

QUESTION NO: 160
The following description of machine learning is correct?
A. Deep learning is a branch of machine learning
B. Deep learning and machine learning are mutually inclusive
C. Deep learning and machine learning are both artificial intelligence but have no relationship to each other
D. None of the above
Answer: A

QUESTION NO: 161
It is fine to pass in only one image when calling the face comparison service.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 162
L1 with L2 Regularization is a method commonly used in traditional machine learning to reduce generalization errors. The following is about the two. The right way is:
A. L1 Regularization can do feature selection
B. L1 with L2 Regularization can be used for feature selection
C. L2 Regularization can do feature selection
D. L1 with L2 Regularization cannot be used for feature selection
Answer: A

L1 → Lasso, use penalty term to perform feature selection ~~for~~ so it don't use irrelevant features

QUESTION NO: 163
In the face search service, if we want to delete a certain face set, we can use this code:
firs_cliet.get_v2().get_face_set_service().delete_face_set("*"), among them "*" is to fill in the actual face set name.
A. TRUE
B. FALSE
Answer: A

least abs shrinkage.
abs value of weight coeff

QUESTION NO: 164
The word recognition in the speech recognition service refers to the synchronous recognition of short speech. Upload the entire audio at once, and the recognition result will be returned in the response.

Shrink the less imp features' coeff to zero, removing some features → good for feature selection ~~in~~ in case of large no. of features.
Shrinks the less important features.

A. TRUE
B. FALSE
Answer: A

QUESTION NO: 165
Which of the following neural network structures will share weights? (Multiple choice)
A. Convolutional neural network
B. Recurrent neural network
C. Fully connected neural network
D. All of the above
Answer: A,B

QUESTION NO: 166
HUAWEI CLOUD EI There are many types of agents according to different industries and application scenarios. Currently, Huawei Cloud EI The agent has?
A. Industrial Agent
B. Traffic Agent
C. Park Agent
D. Car intelligence
Answer: A,B,C,D

QUESTION NO: 167
How many spaces does PEP 8 stipulate that Python's first fine indentation needs to indent?
A. 1
B. 2
C. 4
D. 8
Answer: C

function(inter, x, y, var_3, var_4)
PEP 8.

QUESTION NO: 168
In what year did Huawei officially provide services in the form of cloud services, and combined with more partners to provide richer artificial intelligence practices?
A. 2002
B. 2013
C. 2015
D. 2017
Answer: D

QUESTION NO: 169
enter 32*32 Image with size 5*5 The step size of the convolution kernel is 1 Convolution calculation, output image Size is:
A. 28*23
B. 28*28

output_size = (input_size - kernel_size) / stride + 1.
= (32 - 5) / 1 + 1 = 28

C. 29*29
D. 23*23
Answer: B

QUESTION NO: 170
Which of the following options is not the- session mode used by Tensorflow?
A. Explicitly call the session to generate function
B. Explicitly call the session to close function
C. Through the Python context manager
D. Multiple POST queries
Answer: D

QUESTION NO: 171
Which of the following is HUAWEI HiAI Foundation Function of the module?
A. App integrated
B. Let the service actively find users
C. Quickly convert and migrate existing models
D. According to user needs, push services at the right time and at the right time
Answer: C

QUESTION NO: 172
Which of the following are the activation functions of deep learning algorithms?
A. Sigmoid
B. ReLU
C. Tanh
D. Sin
Answer: A,B,C

- ReLU
- Tanh
- Sigmoid, - Softmax

QUESTION NO: 173
Which of the following statements about Python are correct? (Multiple choice)
A. Invented m 1989 by the Dutch Guido van Rossum, the first public release was issued in 1991.
B. Python 1s purely free software and the source code follows the GPL (GNU General Public License) protocol
C. Python syntax is simple and clean One of the features is to force blank characters to be used as statement 1ndentat1on [Right Answers)
D. Python 1s often nicknamed glue language which can easily connect various modules made 1n other languages
Answer: A,B,C,D

QUESTION NO: 174
Code model.fit(mnist.train.inmage,mnist.train.labels.epochs=5)in of epochs Parameter representative?

A. The entire training set will be trained 5 Times
B. The entire test set will be tested 5 Times
C. The entire training set will be divided into 6 Share
D. The entire training set will be divided into 5 Share
Answer: A

QUESTION NO: 175
Which of the following are solutions for the Huawei Cloud EI industry scenario? (Multiple Choice)
A. Intelligent Logistics
B. Intelligent Water
C. Intelligent transportation
D. Intelligent Finance
E. Intelligent manufacturing
Answer: A,B,C,D,E

QUESTION NO: 176
When the voice recognition service is successfully called, which field is the recognition result stored in?
A. result
B. content
C. data
D. text
Answer: A

QUESTION NO: 177
SVM What are the commonly used kernel functions in?
A. Gaussian kernel function
B. Polynomial kernel function
C. Sigmiod Kernel function
D. Linear kernel
Answer: A,B,C,D

QUESTION NO: 178
K Folding cross-validation refers to dividing the test data set into K Sub-data sets.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 179
The Python dictionary is widely identified by "{}". and the internal data consists of the key and its corresponding value
A. True

B. False
Answer: A

QUESTION NO: 180
Which of the following conditions do the randomized trials need to meet? (Multiple Choice)
A. It can be repeated under the same conditions.
B. There may be more than 011e possible outcome for each trial. and all possible outcomes of the trial can be clarified m advance
C. All results of the lest cannot be clarified in advance
D. It Is not possible to determine which result will appear before conducting a test.
Answer: A,B,D

QUESTION NO: 181
Which of the following is not an application of image recognition services?
A. Target Detection
B. Smart photo album
C. Scene analysis
D. Speech synthesis
Answer: D

QUESTION NO: 182
About Bayesian formula- P(W|X)=P(X|W)*P(W)/P(X) What is the correct description?
A. P(W|X) is a prior probability
B. P(X|W) 1s a conditional probability
C. P(W) is the posterior probability
D. P(X) is the posterior probability
Answer: B

QUESTION NO: 183
What are the steps that are not part of the operation of a Python file object?
A. open
B. delete
C. read
D. write
E. close
Answer: B

QUESTION NO: 184
Vector group a1=(1, 1, 1), a2=(0,2.5), a3=(1.3,6), which of the following options is correct?
A. Linear correlation
B. Linear independence
C. aHa2+a3=0
D. 2a1+a2+a3=0

Answer: A

QUESTION NO: 185
twenty two.Among machine learning algorithms, which of the following is not unsupervised learning?
A. Clustering
B. Association rules
C. Xgboost → gradient boosting supervised
D. GMM
Answer: C → gaussian mixture model, prob that specific data belongs to a specific sub pop.

QUESTION NO: 186
Which description is wrong about the lambda function of the Python language?
A. lambda is just an expression, and the function body is much simpler than def.
B. The body of a lambda can be an expression or a block of code
C. The lambda function can access the parameters in the global namespace.
D. The lambda function accepts only one parameter value
Answer: D
lambda is a small anonymous func.

sum = lambda x,y : x+y.
print (sum (2,3))
p.output → 5

QUESTION NO: 187
TensorFlow It is an end-to-end open source platform for machine learning and deep learning.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 188
Deep learning algorithms can be divided into supervised learning and unsupervised learning.
A. True
B. False
Answer: A

QUESTION NO: 189
What is wrong description of the Python module?
A. The Python module is a Python file that ends with .py and contains Python object definitions and Python statements. ✓
B. The Python module allows you to logically organize your Python code snippets. ✓
C. Python modules can define functions classes and variables but the module does not contain executable code
D. Assigning relevant code to a module can make your code better and easier to understand. ✓
Answer: C

QUESTION NO: 190
Deep learning neural network training requires a lot of matrix calculations. Generally, we need to use hardware to enable the computer to have parallel computing capabilities. The

following hardware devices can provide parallel computing capabilities.:
A. Motherboard
B. RAM
C. GPU
D. CPU
Answer: C

QUESTION NO: 191 → ML/DL
Artificial intelligence is a new technical science that studies and develops theories, methods and application systems for simulating, extending and extending human intelligence. It is one of the core research areas of machine learning.
A. True
B. False
Answer: B
AI ↑

QUESTION NO: 192
Which of the following is not the difference between Python 2 and Python 3?
A. print
B. Unicode
C. import
D. xrange
Answer: C

QUESTION NO: 193
Grid search is a method of parameter adjustment.
A. TRUE
B. FALSE
Answer: B
Grid seach is a systematic way of searching through a combination of parameters & by exhaustively trying out every combination of par val specified in a grid.

QUESTION NO: 194
Huawei firmly believes that the value of AI is ultimately reflected in solving the actual business problems of the enterprise. Therefore, Huawei is firmly committed to the development of AI technology, focusing on domain solutions, focusing on basic technologies and enabling platforms, and working with industry practice leaders to develop industry solutions
A. True
B. False
Answer: A

QUESTION NO: 195
In a neural network based on connectionism, each node can express a specific meaning.
A. TRUE
B. FALSE
Answer: B
the relationship of the nodes & the individual nodes don't hv specific meaning / concept
represents a math func.

QUESTION NO: 196
Which is not a Python operator?
A. arithmetic operator
B. Reasoning operator
C. Logical operator
D. Comparison operator
Answer: B

QUESTION NO: 197
The three stages of artificial intelligence include computational intelligence, () , Cognitive intelligence.
A. Weak artificial intelligence
B. Perceptual intelligence
C. Behavioral intelligence
D. Strong artificial intelligence
Answer: B

QUESTION NO: 198
The following options do not belong to the scope of Huawei's full-stack solution are?
A. Application enable
B. Edge computing
C. Open source framework
D. Chip enable
Answer: B

QUESTION NO: 199
The trace operation returns the sum of the diagonal elements of the matrix. Therefore, the trace of matrix A and its transposed matrix are equal
A. True
B. False
Answer: A

QUESTION NO: 200
In TensorFlow, data is represented in the form of tensors and calculation charts.
A. True
B. False
Answer: B

operations. be to performed on tensors to produce new tensors.

QUESTION NO: 201
Global gradient descent algorithm, stochastic gradient descent algorithm and batch gradient descent algorithm are all gradient descent algorithms. The following is wrong about its advantages and disadvantages.
A. The global gradient algorithm can find the minimum value of the loss function

since it's rand

B. Batch gradient algorithm can solve the local minimum problem
C. Stochastic gradient algorithm can find the minimum value of the loss function
D. The convergence process of the global gradient algorithm is time-consuming
Answer: C

QUESTION NO: 202
HUAWEI HiAI Empower APP What value?
A. Safety
B. stable
C. real time
D. at any time
Answer: A,B,C,D

QUESTION NO: 203
Artificial intelligence at this stage is still in the weak artificial intelligence stage.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 204
Which of the following are the elements of artificial intelligence? (Multiple choice)
A. Algorithm
B. Computing power
C. Data
D. Scene → scenario.
Answer: A,B,C,D

high bias → predict output far from real val : low
low bias → low amount of variation

QUESTION NO: 205
If a model has a large deviation on the test set and a small variance, it means that the model?
A. Overfitting
B. May be overfitting may be underfitting
C. Just fit
D. Underfitting
Answer: D

bias↑ → too simple & don't fit data well

QUESTION NO: 206
As shown below, which are the following matrix A characteristic value? (Multiple choice)

$$A = \begin{bmatrix} 3 & -1 \\ -1 & 3 \end{bmatrix}$$

A. 2
B. -2

C. 4
D. 4
Answer: A,D

QUESTION NO: 207
Information theory is a branch of applied mathematics. The main research is to quantify how much information a signal contains. Who is the first to propose information theory?
A. Minsky
B. Turing
C. Simon
D. Shannon
Answer: D

QUESTION NO: 208
Deep learning is different from machine learning and there are no unsupervised algorithms
A. True
B. False
Answer: B

QUESTION NO: 209
The following about KNN Algorithm k The value description is correct?
A. K The larger the value, the easier the model is to overfit
B. K The larger the value, the smoother the segmentation surface of the classification
C. K Value is a hyperparameter
D. can k Value is set to 0
Answer: B,C

QUESTION NO: 210
Which of the following is not part of the deep learning development framework?
A. CNTK
B. Keras
C. SAFA
D. MXNet
Answer: C

QUESTION NO: 211
Which of the following are the cloud services provided by Huawei Cloud EI Visual Cognition? (Multiple choice)
A. Text recognition
B. Face recognition
C. Image recognition
D. Content detection
E. Image processing

Answer: A,B,C,D,E

QUESTION NO: 212
Recurrent neural networks can capture dynamic information in serialized data.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 213
Which of the following are AI Subfield?
A. Machine learning
B. Computer vision
C. Speech Recognition
D. Natural language processing
Answer: A,B,C,D

QUESTION NO: 214
From the perspective of technical architecture AI The classification of chips includes?
A. FPGA
B. CPU
C. GPU
D. ASIC
Answer: A,B,C,D

QUESTION NO: 215
Which of the following aspects belong to Huawei's full stack AI solution?
A. Ascend
B. CANN
C. ModelArts
D. MindSpore
Answer: A,B,C,D

QUESTION NO: 216
Atlas 800 AI There are multiple models of servers, of which the one based on the Kunpeng processor platform is?
A. Atlas 800 model: 9000
B. Atlas 800 model: 3000
C. Atlas 800 model: 3010
Answer: B

QUESTION NO: 217
On Huawei Cloud EI Which of the following can be AI Technology is integrated into the application scenarios of all walks of life AI The advantages of technology to improve efficiency and improve experience.

A. EI Agent
B. OBS Object storage service
C. Cloud database
D. EI Big data service
Answer: A

QUESTION NO: 218
In the gradient descent algorithm, which of the following algorithms is the most confusing algorithm for the trajectory on the loss function surface?
A. SGD
B. BGD
C. MGD
D. MBGD
Answer: A

QUESTION NO: 219
Which of the following activation functions are prone to vanishing gradient problems?
A. ReLU
B. Softplus
C. Tanh
D. Sigmoid
Answer: C,D

QUESTION NO: 220
Which is the correct description of the python creation function? (Multiple choice)
A. The function created starts with the def keyword followed by the function name and parentheses.
B. The parameters need to be placed in parentheses
C. The function content starts with a colon and needs lo be indented (Right Answers)
D. Return the result with return and the function ends.
Answer: A,B,C,D

QUESTION NO: 221
Regarding backpropagation, the following statement is wrong?
A. Backpropagation can only be used in feedforward neural networks
B. Backpropagation passes through the activation function
C. Back propagation refers to the back propagation of errors through the network
D. Backpropagation can be combined with gradient descent algorithm to update network weights
Answer: A

QUESTION NO: 222
For the image classification problem, which of the following neural networks is more suitable

to solve this problem?
A. sensor
B. Recurrent neural network
C. Convolutional Neural Network
D. Fully connected neural network
Answer: C

QUESTION NO: 223
tf.keras.datasets Can view keras The built-in data set.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 224
Which of the following about the dictionary in Python is correct? (Multiple Choice)
A. Each key and its corresponding value need to be separated by ":
B. Separate the different key-value with
C. The entire dictionary is included in the
D. The keys of the d1cl1onary are unique and the data type 1s uniform
Answer: A,B,C,D

QUESTION NO: 225
TensorFlow 2.0 stand by GPU The acceleration is mainly manifested in the parallel operation of the addition, subtraction, multiplication and division of the matrix accelerate.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 226
Principal Component Analysis (PCA) is a statistical method. A set of variables that may be related to each other is transformed into a set of linearly related variables by orthogonal transformation The converted set of variables is called the principal component
A. True
B. False
Answer: B

QUESTION NO: 227
The number of hidden layers of the deep learning neural network has a certain impact on the performance of the network. The following statement about its impact is correct.:
A. The number of hidden layers is appropriately reduced, and the resolution ability of the neural network remains unchanged
B. Increase the number of hidden layers appropriately, the stronger the resolution ability of the neural network
C. The number of hidden layers is appropriately reduced, the stronger the resolution ability of

the neural network is

D. The number of hidden layers increases appropriately, the weaker the resolution ability of the neural network

Answer: B

QUESTION NO: 228

Generative confrontation networks are currently widely useD. The following scenarios can use this network?

A. Data enhancement

B. Semantic segmentation

C. Information retrieval

D. Image generation

Answer: A,B,C,D

QUESTION NO: 229

The Python language can use multiple statements on the same line, separated by commas ";".

A. True

B. False

Answer: B

QUESTION NO: 230

What are the application scenarios for the break statement in the Python language? (Multiple Choice)

A. Any Python statement

B. while loop statement

C. for loop statement

D. Nested loop statement

Answer: B,C,D

QUESTION NO: 231

When we describe the house, we usually use the attributes such as residential area, house type, decoration type, etC. If we use plain With Bayes as a model, we assume that there is no relationship between attributes.

A. TRUE

B. FALSE

Answer: A

QUESTION NO: 232

Add to the loss function of linear regression L1 Regular term, this time the regression is called Lasso return.

A. TRUE

B. FALSE

Answer: A

QUESTION NO: 233

What people say about neural networks is wrong?

A. As the number of hidden layers of the neural network increases, the classification ability of the model gradually weakens

B. The limitation of a single-layer perceptron is that it cannot solve the XOR problem

C. The feedforward neural network can be represented by a directed acyclic graph

D. There is no connection between neurons in the same layer of the feedforward neural network

Answer: A

QUESTION NO: 234

Use with Atlas300 (3000) What conditions need to be checked when the accelerator card server compiles and runs the program?

A. carry out Atlas Driver Installation

B. It has been installed CUDA Software package

C. It has been installed Cmake Compilation tool

D. Complete environment configuration

Answer: A,C,D

QUESTION NO: 235

The commonly used loss functions in deep learning are?

A. L1 Loss function

B. Mean square error loss function

C. Cross entropy error loss function

D. Self-declining loss function

Answer: B,C

QUESTION NO: 236

twenty two.Among machine learning algorithms, which of the following is not unsupervised learning?

A. GMM

B. Xgboost

C. Clustering

D. Association rules

Answer: B

QUESTION NO: 237

Loss function and model function are the same thing.

A. TRUE

B. FALSE

Answer: B

QUESTION NO: 238

What is not the optimization method in deep learning?
A. Random gradient descent
B. Back propagation algorithm
C. Principal component analysis
D. Momentum
Answer: C

QUESTION NO: 239
HUAWEI HiAI Which tool does the platform support to integrate with?
A. Jupyter Notebook
B. MyEclipse
C. Android Studio
D. Spider
Answer: C

QUESTION NO: 240
Huawei Ascend AI Chip is NPU (Neural network processor) One of the typical representatives.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 241
Python regular expressions are a special sequence of characters that makes it easy to check if a string matches a pattern.
A. True
B. False
Answer: A

QUESTION NO: 242
What is wrong about the image content review service?
A. politics Test results for sensitive persons involved in politics
B. terrorism Test results for political violence
C. confidence Represents confidence, range 0-100
D. label Label representing each test result
Answer: C

QUESTION NO: 243
in TensorFlow2.0 in tf.contrib The method can continue to be used.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 244

The timestamps in the Python language- are represented by how long (in seconds) elapsed from midnight (epoch) on January 1, 1970
A. True
B. False
Answer: A

QUESTION NO: 245
Which of the following are the topics of speech processing research?
A. Speech processing
B. Voiceprint recognition
C. Speech Recognition
D. Wake up
Answer: B,C,D

QUESTION NO: 246
The TensorFlow framework does not support Windows systems.
A. True
B. False
Answer: B

QUESTION NO: 247
In the process of training the neural network, our goal is to keep the loss function reduced. Which of the following methods do we usually use to minimize the loss function?
A. Gradient descent
B. Dropout
C. Cross-validation
D. Regularization
Answer: A

QUESTION NO: 248
Image label service returned tag There can be more than one.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 249
Recurrent neural network is different from convolutional neural network, it is better at solving the following problems?
A. Sequence related issues
B. Image classification
C. Image detection
D. Recommended question
Answer: A

QUESTION NO: 250
What are the numeric types of Python? (Multiple Choice)
A. int (integer type)
B. long (long integer type)
C. float (floating point type)
D. complex (complex number type)
Answer: A,B,C,D

QUESTION NO: 251
What are the conditions for m row n column matrix A and p row q column matrix B to be multiplied?
A. m=p. n=q
B. n=p
C. m=n
D. p=q
Answer: B

QUESTION NO: 252
The following statement about recurrent neural networks is wrong?
A. Recurrent neural network can be unfolded according to the time axis
B. LSTM Unable to solve the problem of vanishing gradient
C. LSTM It is also a recurrent neural network
D. Recurrent neural network can be abbreviated as RNN
Answer: B

QUESTION NO: 253
TensorFlow only supports Python and R language
A. True
B. False
Answer: B

QUESTION NO: 254
Machine Learning Service is a data mining and analytics platform service that helps users quickly discover data patterns and build predictive models through machine learning techniques and deploy them as predictive analytics solutions
A. True
B. False
Answer: A

QUESTION NO: 255
Which of the following can optimization problem be classified according to the constraints? (Multiple choice)
A. equality constraints
B. Inequality constraints
C. Unconstrained conditions
D. Semi-constraint conditions
Answer: A,B,C

QUESTION NO: 256
AI Chip is also called AI Accelerators are specially designed to handle a large number of computing tasks in artificial intelligence applications functional module.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 257
The following does not belong TensorFlow2.0 Is characterized by?
A. Multi-core CPU accelerate
B. distributed
C. multi-language
D. Multi-platform
Answer: A

QUESTION NO: 258
What is the subject of artificial intelligence?
A. Mathematics and Physiology
B. Psychology and Physiology
C. Linguistics
D. Comprehensive mterd1sc1pl1nary and marginal d1sc1phnes
Answer: D

QUESTION NO: 259
Functions are well-organized, non-reusable code segments used to implement a single, or associated Function.
A. True
B. False
Answer: B

QUESTION NO: 260
Tensorflow is the second generation of artificial intelligence learning system developed by Google based on ( ).
A. DistBelief
B. PaleyFunction
C. ConvexOne
D. Infinity
Answer: A

QUESTION NO: 261

Under the large-scale relationship analysis scenario, which of the following options does not belong to the three high demands of massive relationship processing?
A. Efficient relationship discovery data for massive data
B. Efficient sharing of massive data
C. Efficient storage and access requirements for massive amounts of data
D. High scalability and high availability requirements for relational analysis platforms
Answer: B

QUESTION NO: 262
Which of the following items are included in the results returned when the face search service is successfully called?
A. Searched face similarity
B. Searched faces id
C. Searched face position
D. Searched face number
Answer: A,B,C

QUESTION NO: 263
Which of the following are AI Application areas?
A. Wisdom education
B. Smart City
C. Smart home
D. Smart medical
Answer: A,B,C,D

QUESTION NO: 264
Ce11 Provides basic modules for defining and performing calculations, Ce11 The object can be executed directly, the following statement is wrong?
A. __init__,Initialization parameters(Parameter), Submodule(Ce11),operator(Primitive)Equal group Software for initial verification
B. Construct, Define the execution process. In graph mode, it will be compiled into graphs for execution, and there is no syntax restriction
C. There's some left optim Commonly used optimizers,wrap Pre-defined commonly used network packaging functions Ce11
D. bprop (Optional), The reverse of the custom module
Answer: A,C,D

QUESTION NO: 265
Tensorflow supports multi-TPU cluster computing
A. True
B. False
Answer: A

QUESTION NO: 266

With Atlas300 (3000)Install the accelerator card in the server DDK (Device Development Kit) Only need to install when dependent on the environment Python3.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 267
What are the characteristics of Python code? (Multiple Choice)
A. Ieg1bil1ty
B. Simpl1c1ty
C. Rapidity → fulcin slow.
D. Scalab1hty
Answer: A,B,D

QUESTION NO: 268
Which description is wrong about the hyperparameter?
A. 1-typerparameters are parameters that set values before the algorithm begins learning.
B. Most machine learning algorithms have hyperparameters.
C. Hyperparameters cannot be modified
D. The value of the hyperparameter is not learned by the algorithm itself
Answer: C
Y must be input.

QUESTION NO: 269
According to Huawei Cloud EI Intelligent platform, which of the following solutions can be provided?
A. Crowd statistics program
B. Policy query scheme based on knowledge graph
C. Vehicle identification scheme
D. Intrusion recognition scheme
Answer: A,B,C,D

QUESTION NO: 270
Which of the following is not an artificial intelligence school?
A. Symbolism
B. StatJst1caltsm
C. Behaviorism
D. Connectionism
Answer: B

QUESTION NO: 271
TensorFlow2.0 middle Keras The three main advantages of the interface are user-friendly, modular and Combination, easy to expand.
A. TRUE

B. FALSE
Answer: A

QUESTION NO: 272
Which of the following options is not a tensor attribute?
A. name (Logo)
B. shape (Dimensionality)
C. type (Type)
D. node (Node)
Answer: D

QUESTION NO: 273
Regular term can also be added to logistic regression to avoid overfitting.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 274
All convolution kernels of the same convolution layer in the convolutional neural network are weight-sharing.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 275
The following about the standard RNN Model, the correct statement is?
A. There is no one-to-one model structure
B. Do not consider the time direction when backpropagating
C. There is no many-to-many model structure
D. There will be a problem of attenuation of long-term transmission and memory information
Answer: D

QUESTION NO: 276
HUAWEI HiAI Which module does the face detection in the platform belong to?
A. HiAI Engine
B. HiAI Framework
C. HiAI Foundation
D. HiAI Service
Answer: A

QUESTION NO: 277
Root The user cannot install Atlas300 (3000) Install the accelerator card on the server DDK (Device Development Kit), Can only be installed by ordinary users.
A. TRUE

B. FALSE
Answer: A

QUESTION NO: 278
TensorFlow2.0 not support tensor in GPU with CPU Transfer between each other.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 279
When training the network of God, we often encounter many problems. For the problem of vanishing gradient, we can choose to make. Which of the following functions to alleviate the problem?
A. Relu function
B. Sigmoid function
C. tanh function
D. Softsign function
Answer: A

QUESTION NO: 280
Which of the following statements about passport recognition services are correct?
A. country_code Country code representing the country where the passport was issued
B. nationality Nationality of representative holder
C. passport_number Representative passport number
D. confidence Confidence information of related fields. The greater the confidence, the higher the reliability of the corresponding field identified this time. In a statistical sense, the greater the confidence, the higher the accuracy
Answer: A,B,C,D

QUESTION NO: 281
The determinant of square matrix A is a scalar.
A. True
B. False
Answer: A

QUESTION NO: 282
When using TensorFlow2. 0 of keras When building a neural network with an interface, the network needs to be compiled. Which of the following methods should be used to work?
A. compile
B. write
C. join
D. fit
Answer: A

QUESTION NO: 283
X, Y are random variables, C is a constant, the nature of the difference in the following options which is wrong? (Multiple choice)
A. D(C)=O
B. D(X+ Y)=D(X)+D(Y)
C. D(CX)=C'C'D()()
D. D(XY)=D(X)D(Y)
Answer: B,D

QUESTION NO: 284
Which of the following about the description of expectations and variances is incorrect?
A. Expectation reflects the average level of random variable values
B. The variance reflects the degree of deviation between the random variable and its mathematical expectation
C. Expectation and variance are both numerical characteristics of random variables
D. The greater the expectation the smaller the variance
Answer: D

QUESTION NO: 285
In the deep learning neural network, the perceptron is the simplest neural network. The correct statement about its structure is:
A. There are only two hidden layers
B. Only one hidden layer
C. Its network uses Sigmoid Activation function
D. Its network uses Relu Activation function
Answer: B

QUESTION NO: 286
What is the most important difference between batch gradient descent, mini-batch gradient descent, and stochastic gradient descent?
A. Gradient size
B. Gradient direction
C. Learning rate
D. Number of samples used
Answer: D

QUESTION NO: 287
According to the definition of information entropy what is the bit entropy of throwing a uniform coin?
A. 0
B. 0.5
C.
D. -1

Answer: C

QUESTION NO: 288
Which of the following is not MindSpore Features of the core architecture?
A. Automatic differentiation
B. Automatic tuning
C. Automatic coding
D. Automatic parallel
Answer: C

QUESTION NO: 289
Corvolutional neural networks are more suitable for dealing with speech recognition problems
A. True
B. False
Answer: B

QUESTION NO: 290
In order for a machine to be intelligent, it must be knowledgeable. Therefore, there is a research field in artificial intelligence. which mainly studies how computers automatically acquire knowledge and skills to achieve self-impr011emenL What is the branch of this research called?
A. Expert system
B. Machine learning
C. Neural Network
D. Natural language processing
Answer: B

QUESTION NO: 291
Ascend among the following options 310 And Shengteng 910 The attributes are the same?
A. Maximum power
B. Architecture
C. Integer precision
D. 7nm Process
Answer: B

QUESTION NO: 292
What are the algorithms supported by Tensorflow? (Multiple Choice)
A. GNN
B. ZNN
C. RNN (Rig ht Answers)
D. HUT
Answer: A,C

QUESTION NO: 293

Where should the labeled data be placed in the confrontation generation network?
A. As the output value of the generated model
B. As the input value of the discriminant model
C. As the output value of the discriminant model
D. As input value for generative model
Answer: B

QUESTION NO: 294
Which of the following description 1s wrong about the image recognition cloud service?
A. The service identifies specific objects such as skyscrapers, buildings, and ships.
B. The service can also identify the sea, city, port and other scenes.
C. The service can perform semantic analysis on the content in the image to extract labels with specific abstract meanings
D. The service can provide object and scene labels and can also provide more conceptual labels
Answer: D

QUESTION NO: 295
Which of the following is not a specific technology of artificial intelligence?
A. Knowledge map
B. Machine translation
C. Riemann geometry
D. Semantic understanding
Answer: C

QUESTION NO: 296
HiAI Mobile computing platform provides rich upper-level functional services API, Can run efficiently on mobile devices.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 297
In the deep learning network, the backpropagation algorithm is used to find the optimal parameters. What rules are used in the backpropagation algorithm to obtain the derivation layer by layer?
A. Chain rule
B. Cumulative rule
C. Law of reciprocity
D. Rule of Normalization
Answer: A

QUESTION NO: 298
Which of the following descriptions about the Recurrent Neural Network (RNN) is correct?

A. Can be used to process sequence data.
B. Cannot process variable length sequence data.
C. Unlike convolutional neural networks. parameters of RNN cannot be shared
D. The units above the hidden layer are not associated With each other.
Answer: A

QUESTION NO: 299
Which of the following capabilities does the genetic knowledge map have?
A. Auxiliary case diagnosis
B. Disease prediction and diagnosis
C. Gene test report generation
D. Entity query
Answer: A,C,D

QUESTION NO: 300
What research areas does artificial intelligence have? (Multiple choice)
A. Natural language processing
B. Computer Vision
C. Machine learning
D. Speech recognition
Answer: A,B,C,D

QUESTION NO: 301
The Python language can use the "#" at the beginning of a single line of code for code comments .
A. True
B. False
Answer: A

QUESTION NO: 302
When the universal text recognition service is successfully called, the returned text recognition result is stored in which of the following fields?
A. text
B. result
C. content
D. words
Answer: B

QUESTION NO: 303
The following options belong to keras under estimator The encapsulation methods are?
A. Assessment
B. training
C. prediction

D. Output model
Answer: A,B,C

QUESTION NO: 304
What are the regularizations in deep learning? (Multiple Choice)
A. L1 norm. L2 norm
B. Data set enhancement
C. Integration method
D. Dropout
Answer: A,B,C,D

QUESTION NO: 305
Which of the following description about Python regular expression is not correct?
A. Python has added there regular expression module since version 1.5.
B. re regular expression module gives the Python language all the regular expression functionality.
C. re regular expressions are powerful tools for working with strings.
D. re regular expressions can only process string data not numeric data
Answer: D

QUESTION NO: 306
The for loop statement in the Python language can iterate through the items in any sequence .
A. True
B. False
Answer: A

QUESTION NO: 307
The following applications that are not part of the adversarial generation network are?
A. Text generation
B. Image generation
C. Image Identification
D. Data enhancement
Answer: C

QUESTION NO: 308
Regarding the face search service, which of the following statements are correct?
A. When there is no face set, you need to create a face set first, then add face data, and then search
B. The size of a face set cannot exceed 10000 Pictures
C. There is a dedicated interface to delete the specified face set
D. There is a dedicated interface to delete the face data in a certain face set
Answer: A,C,D

QUESTION NO: 309
GPU Good at computationally intensive and easy to parallel programs.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 310
Which of the following options are <Artificial Intelligence Comprehensive Experiment> May be used in calling Huawei cloud services?
A. ak
B. region
C. project_id
D. sk
Answer: A,B,C,D

QUESTION NO: 311
The matrix produced by the exchange of matrix A rows and columns is called the transpose of A . What are the correct properties of matrix transposition? (Multiple Choice)
A. (A T) T = A
B. (A+ 8) T = AT +BT
C. (!EA) T = !EAT
D. (AB} T = A T +BT
Answer: A,B,C

QUESTION NO: 312
The activation function plays an important role in the neural network model learning and understanding of very complex problems. The following statement about the activation function is correct.
A. Activation functions are linear functions.
B. Activation functions are non-linear functions
C. The activation function is partly a nonlinear function, partly a linear function
D. Most of the activation functions are nonlinear functions, and a few are linear functions
Answer: B

QUESTION NO: 313
Which of the following is not included in the recurrent neural network usage scenario?
A. Machine translation
B. Speech recognition
C. Image style migration
D. Text generation
Answer: C

QUESTION NO: 314
Which of the following options is not a reason for traditional machine learning algorithms to

promote the development of deep learning?
A. Dimensional disaster
B. local invariance and smooth regularization
C. Manifold learning
D. Feature Engineering
Answer: D

QUESTION NO: 315
Which of the following is not a face recognition technology?
A. Face search
B. Face comparison
C. Face Detection
D. Remake recognition
Answer: D

QUESTION NO: 316
Numerical calculation refers to the method and process of effectively using the digital computer to solve the approximate problem of mathematical problems, and the discipline consisting of related theories.
Which of the following processes are involved in solving actual problems with a computer? (Multiple Choice)
A. Know the actual problem
B. Mathematical model
C. Numerical calculation method
D. Programm1ng
E. Computer calculation results
Answer: A,B,C,D,E

QUESTION NO: 317
The following evaluation indicators belonging to the regression algorithm are?
A. Recall rate
B. Confusion matrix
C. Mean square error
D. Accuracy
Answer: C

QUESTION NO: 318
Which of the following is an image label service URI?
A. /v1.0/image/recognition
B. /v1.0/image/celebrity-recognition
C. /v1.0/image/recapture-detect
D. /v1.0/image/tagging
Answer: D

QUESTION NO: 319
What are the Python language data types? (Multiple Choice)
A. numbers
B. string
C. list
D. tuple
E. dictionary
Answer: A,B,C,D,E

QUESTION NO: 320
Which of the following data types does Tensorflow not support?
A. int8
B. float32
C. double64
D. bool
Answer: C

QUESTION NO: 321
Which of the following is not a module in the Tensorflow library?
A. tf.nn
B. tf. layers
C. tf.boost
D. tf.contrib
Answer: C

QUESTION NO: 322
Which is wrong with the Python module time introduction method?
A. import time
B. from time import *
C. import time as t
D. from time
Answer: D

QUESTION NO: 323
Pytorch Which company launched it first?
A. Baidu
B. Google
C. Facebook
D. Huawei
Answer: C

QUESTION NO: 324

Atlas accelerate AI What processor is used for inference?
A. Different 910 processor
B. Different 310 processor
C. GPU
D. FPGA
Answer: B

QUESTION NO: 325
Which of the following options is not the Tensorflow build process?
A. Building a calculation chart
B. Input tensor
C. Generate a session
D. Update weights I Right Answers)
Answer: D

QUESTION NO: 326
Linear regression in 3 The fitted surface in the dimension above dimension is?
A. Curved surface
B. flat
C. Hyperplane
D. Hypersurface
Answer: C

QUESTION NO: 327
Which of the following products is related to artificial intelligence? (Multiple Choice)
A. Alpha Go
B. Self-driving
C. Voice input
D. Huawei Mate mobile phone
Answer: A,B,C,D

QUESTION NO: 328
None of the following options TensorFlow2.0. The supported operators are:
A. pow
B. @
C. ^
D. //
Answer: C

QUESTION NO: 329
Not supported in the following options TensorFLow2.0 The attributes for dimensional transformation are
A. squeeze

B. reshape
C. gather
D. transpose
Answer: C

QUESTION NO: 330
Which descriptions are correct about python's index? (Multiple Choice)
A. Index from left to right defaults from 0
B. Index from left to right defaults from 1
C. Index from right lo left defaults from -1
D. Index from right to left defaults from 0
Answer: A,C

QUESTION NO: 331
The following code was used when compiling the model:model.compile(optimizer='Adam,loss='categorical.crossentropy',metrics=[tf.keras.metrics.accuracy]), currently using evaluate When the method evaluates the model, which of the following indicators will be output?
A. accuracy
B. categorical_ 1oss
C. loss
D. categorical accuracy
Answer: A,C

QUESTION NO: 332
In Huawei Cloud EI Enterprise Intelligence, which basic platform services are included? (Multiple Choice)
A. Machine learning
B. Deep learning
C. Graph engine
D. Batch processing
Answer: A,B,C,D

QUESTION NO: 333
Which of the following environments does not support to install the T11nsorFlow?
A. Linux
B. Mac OS
C. Docker
D. OpenStack
Answer: D

QUESTION NO: 334
The Python language does not allow embedding another loop body in a loop body

A. True
B. False
Answer: B

QUESTION NO: 335
An e-commerce company has always had problems with official website stalls, poor utilization of network resources, and difficulty in operation and maintenance. Then which of the following can the company use EI service?
A. Park Agent
B. Traffic Agent
C. Network agent
D. Industrial Agent
Answer: C

QUESTION NO: 336
Artificial intelligence is currently suitable for scenarios with I' known environment, clear objectives, and predictable action . Deep learning in the fields of image recognition, speech recognition, translation, etc , artificial intelligence basically has human recognition ability. even surpassing human beings Based on these capabilities. it has been applied to many scenes such as medical care and public safety However, there is still a lack of reasoning and cognition
A. True
B. False
Answer: A

QUESTION NO: 337
Regularization is an important and effective technique for reducing generalization errors in traditional machine learning. The following techniques are regular. The technology is:
A. L1 Regularization
B. L2 Regularization
C. Dropout
D. Momentum optimizer
Answer: A,B,C

QUESTION NO: 338
TensorFlow2.0 The mechanism of graphs and conversations has been cancelled in.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 339
What are the common types of dirty data?
A. Malformed value
B. Duplicate value

C. Logically wrong value
D. Missing value
Answer: A,B,C,D

QUESTION NO: 340
Which is not a deep learning algorithm?
A. Setr-encoder
B. Convolutional neural networks
C. Recurrent neural networks
D. Support vector machine
Answer: D

QUESTION NO: 341
TensorF1ow2.0 Can be used to check if it is tensor The methods are?
A. dtype
B. isinstance
C. is_tensor
D. device
Answer: B,C

QUESTION NO: 342
A scalar k is multiplied by matrix A equal to k and each of the numbers in A is multiplied.
A. True
B. False
Answer: A

QUESTION NO: 343
Which of the following statements about overflow and underflow in numerical calculations is correct? (Multiple choice)
A. Underflow occurs when the number close to zero Is rounded to zero
B. Overflow occurs when the number close to zero 1s rounded to zero
C. Overflow occurs when a large number of levels are approximated as 1P or - 1P
D. Underflow occurs when a large number of levels are approximated as 1P or - 1P
Answer: A,C

QUESTION NO: 344
Feature is the dimension that describes the characteristics of the sample. Regarding its interpretability in traditional machine learning and deep learning, the following statement is correct:
A. Features are interpretable in traditional machine learning, but weak in deep learning
B. Features are weak in traditional machine learning, but strong in deep learning
C. Features are weak in interpretability in traditional machine learning and deep learning
D. Features are interpretable in traditional machine learning and deep learning

Answer: A

QUESTION NO: 345
Which of the following features does Python support? (Multiple choice)
A. Inheritance
B. Heavy load
C. Derived
D. Multiple inheritance
Answer: A,B,C,D

QUESTION NO: 346
What of the following does belong to convolutional neural network (CNN)? (Multiple Choice)
A. VGGNet
B. ResNet
C. AlexNet
D. GoogleNet
Answer: A,B,C,D

QUESTION NO: 347
Gyclic neural networks are more suitable for dealing with image recognition problems.
A. True
B. False
Answer: B

QUESTION NO: 348
Which of the following does the convolutional neural network structure not include?
A. Convolutional layer
B. Pooling layer
C. Loop layer
D. Fully connected layer
Answer: C

QUESTION NO: 349
Regarding the convolutional neural network pooling layer, the following description is correct ?
A. Pooling operation is realized by scanning window
B. The pooling layer can play a role in dimensionality reduction
C. Commonly used pooling methods include maximum pooling and average pooling
D. The pooled feature image becomes smaller
Answer: A,B,C,D

QUESTION NO: 350
What is wrong description or backpropagation?
A. The learning process or the backpropagation algorithm consists of a forward propagation process and a back-propagation process.
B. The backpropagation algorithm is a learning algorithm suitable for multi-layer neural networks, which is based on the gradient descent method
C. The backpropagation phase sends training inputs to the network to obtain an stimuli response
D. until the response of the network to the input reaches the predetermined target range.
Answer: C

QUESTION NO: 351
The following is the correct difference between machine learning algorithms and traditional rule-based methods?
A. Traditional rule-based methods, in which the rules can be explicitly clarified manually
B. Traditional rule-based methods use explicit programming to solve problems
C. The mapping relationship of the model in machine learning is automatically learned
D. The mapping relationship of the model in the machine learning institute must be implicit
Answer: A,B,C

QUESTION NO: 352
Regarding backpropagation, the following statement is wrong?
A. Backpropagation can only be used in feedforward neural networks
B. Backpropagation can be combined with gradient descent algorithm to update network weights
C. Backpropagation passes through the activation function
D. Back propagation refers to the back propagation of errors through the network
Answer: A

QUESTION NO: 353
The image data of the passport recognition service is not needed base64 Coded.
A. TRUE
B. FALSE
Answer: B

QUESTION NO: 354
When dealing with actual problems, when should machine learning be used in the following situations?
A. The data distribution itself changes over time, requiring continuous re-adaptation of the program, such as predicting the trend of merchandise sales
B. The complexity of the rules is low, and the problem is small
C. Task rules will change over time, such as defect detection on the production line
D. The rules are very complicated or cannot be described, such as face recognition and voice recognition
Answer: A,C,D

QUESTION NO: 355

The Python list can be identified by '[]", and the default index of the first element from left to right is 1.
A. True
B. False
Answer: B

QUESTION NO: 356
Which command can be checked Atlas 300 (3000) Whether the accelerator card is in place?
A. 1spci | grep'npu'
B. 1spci | grep'd100'
C. 1spci grep'atlas'
D. atlas info
Answer: B

QUESTION NO: 357
Which of the following steps in deep learning are automatically completed by the model?
A. Model training
B. Feature selection
C. Analysis and positioning task
D. Feature extraction
Answer: B,D

QUESTION NO: 358
HUAWEI CLOUD EI Enable more use of corporate boundaries AI And big data services to accelerate business development and benefit society. HUAWEI CLOUD EI The service can serve the enterprise in the following aspects?
A. Industry data
B. Industry wisdom
C. algorithm
D. Computing power
Answer: A,B,C,D

QUESTION NO: 359
The following about the general form identification service returned type The field statement is correct?
A. type Representative text recognition area type
B. type for text Time represents the text recognition area
C. type Representative form type
D. type for table Time represents the form recognition area
Answer: B,D

QUESTION NO: 360
In a neural network, knowing the weight and deviations of each neuron is the most important step. If you know the exact weights and deviations of neurons in some way, you can

approximate any function What is the best way to achieve this?
A. Random assignment, pray that they are correct
B. Search for a combmat1on of weight and deviation until the best value 1s obtained
C. Assign an initial value to iteratively update weight by checking the difference between the best value and the initial
D. The above is not correct
Answer: C

QUESTION NO: 361
What are the commonly used gradient descent optimization functions? (Multiple Choice)
A. Random gradient descent
B. Adadelta
C. Adagrad
D. momentum
E. RMSProp
Answer: A,B,C,D,E

QUESTION NO: 362
Huawei Machine learning Service MLS MLS is a one-stop platform that supports the entire process of data analysis. Which of the following is not a feature of MLS?
A. A rich library of machine learning algorithms.
B. machine learning program is intuitive and easy to use.
C. Distributed and scalable big data computing engine.
D. Support for the R language but does not support the Python language
Answer: D

QUESTION NO: 363
GBDT Compared with the random forest algorithm, which of the following statements is wrong?
A. GBDT Algorithm is easier to underfit than random forest
B. Random forest is calculated in parallel, while GBDT Can't
C. GBDT Algorithm is easier to overfit than random forest
D. GBDT And random forest are built on CART Based on the tree
Answer: C

QUESTION NO: 364
What are the results returned by the if conditional statements in the Python language? (Multiple choice)
A. True
B. 0
C. FALSE
D. null
Answer: B,C

QUESTION NO: 365
Label when the image remake detection service is called successfully sugestion What's the situation?
A. certainty ?
B. FALSE
C. uncertainty
D. TRUE
Answer: B,C,D

QUESTION NO: 366
CPU Mainly through increasing instructions, increasing the number of cores, etc. to improve AI performance.
A. TRUE
B. FALSE
Answer: A

QUESTION NO: 367
The time interval in the Python language is a Hoating-point fraction in seconds
A. True
B. False
Answer: A

QUESTION NO: 368
Self-encoder is an unsupervised learning algorithm
self encode.
A. True
B. False
Answer: A

QUESTION NO: 369
Among the machine learning algorithms, the following is not an integrated learning strategy?
A. Boosting
B. Stacking
C. Bagging
D. Marking ?
Answer: D

ensamble learning

used to predict multiple nodes to build a new model & improve model performance.

QUESTION NO: 370
AI Chips are divided into business applications and can be divided into?
A. training
B. GPU
C. Model building
D. reasoning
Answer: A,D

vanishing grad.
- Sigmoid → (0,1) → der (0, 0.25)
- Tanh → (-1, 1) → der (0,1)
- Soft sign → (0, ∞) → der (0,1)

(discrete) ReLU → (0, ∞) → der (0,1)
(cont) Softplus → (0, ∞) → der (0,1)

Softmax → classification
↳ not cont.
↳ probability