

Started on	Wednesday, 4 June 2025, 12:28 PM
State	Finished
Completed on	Wednesday, 4 June 2025, 12:35 PM
Time taken	7 mins 27 secs
Marks	20.00/30.00
Grade	66.67 out of 100.00

Question 1

Complete

Mark 1.00 out of 1.00

Which deep learning architecture is best suited for image classification?

- ☐ a. RNN
- ☐ b. GAN
- ☒ c. CNN
- ☐ d. Transformer

Question 2

Complete

Mark 1.00 out of 1.00

What happens in the virtual DOM when a state changes in React?

- ☐ a. Entire app is re-rendered
- ☐ b. No re-render happens
- ☐ c. Direct manipulation of the real DOM
- ☒ d. Comparison with previous virtual DOM (diffing)

Question 3

Complete

Mark 0.00 out of 1.00

In PCA, the principal components are:

- ☒ a. The columns with highest variance
- ☐ b. Eigenvectors of the covariance matrix
- ☐ c. Orthogonal directions of maximum variance
- ☐ d. The rows of the original matrix

Question 4

Complete

Mark 1.00 out of 1.00

L1 regularization encourages:

- ☐ a. Feature scaling
- ☒ b. Feature selection
- ☐ c. Faster convergence
- ☐ d. Dense models

Question 5

Complete

Mark 1.00 out of 1.00

Which HTTP method is idempotent and safe?

- ☐ a. DELETE
- ☐ b. PATCH
- ☒ c. GET
- ☐ d. POST

Question 6

Complete

Mark 1.00 out of 1.00

What does REST stand for?

- ☐ a. Real-time Entity Schema Transfer
- ☐ b. Remote Engine System Tuning
- ☐ c. Random Event Sync Tracker
- ☒ d. Representational State Transfer

Question 7

Complete

Mark 1.00 out of 1.00

What is the main idea behind k-fold cross-validation?

- ☒ a. Divide training set into k equal parts for testing
- ☐ b. Prune decision trees in k iterations
- ☐ c. Train with k different algorithms
- ☐ d. Use k hidden layers in a neural network

Question 8

Complete

Mark 1.00 out of 1.00

What is JSX in React?

- ☐ a. JavaScript syntax validator
- ☐ b. jQuery-based syntax
- ☒ c. JavaScript and XML mix
- ☐ d. JSON over XML

Question 9

Complete

Mark 1.00 out of 1.00

What does SQL injection target?

- ☐ a. Authentication logic
- ☒ b. Database query layer
- ☐ c. Server file system
- ☐ d. JavaScript variables

Question 10

Complete

Mark 0.00 out of 1.00

In Docker, what is the purpose of a volume?

- ☒ a. Create isolated containers
- ☐ b. Build images
- ☐ c. Persist data outside containers
- ☐ d. Mount environment variables

Question 11

Complete

Mark 0.00 out of 1.00

What does a high bias in a ML model indicate?

- ☐ a. The model is too complex
- ☐ b. The model is underfitting
- ☐ c. The model is overfitting
- ☒ d. The model has high variance

Question 12

Complete

Mark 0.00 out of 1.00

Which tool can be used for CI/CD in Full Stack pipelines?

- ☐ a. MongoDB Compass
- ☒ b. Docker Hub
- ☐ c. Postman
- ☐ d. Jenkins

Question 13

Complete

Mark 1.00 out of 1.00

What is the purpose of useRef in React?

- ☐ a. Handle component lifecycle
- ☒ b. Access DOM elements or persist values
- ☐ c. Store global context
- ☐ d. Manage local component state

Question 14

Complete

Mark 0.00 out of 1.00

What is the key difference between bagging and boosting?

- ☐ a. Bagging combines weak learners sequentially
- ☒ b. Bagging reduces variance by averaging weak learners
- ☐ c. Boosting focuses on correcting errors of previous models
- ☐ d. Boosting uses random subsets

Question 15

Complete

Mark 1.00 out of 1.00

Which of the following statements is true for Gradient Descent?

- ☐ a. It always finds the global minimum
- ☒ b. It updates parameters using a learning rate
- ☐ c. It increases the loss function
- ☐ d. It does not work with non-differentiable functions

Question 16

Complete

Mark 0.00 out of 1.00

Which Node.js module is used to create an HTTP server?

- ☐ a. http
- ☒ b. express
- ☐ c. socket
- ☐ d. net

Question 17

Complete

Mark 1.00 out of 1.00

What does CORS handle?

- ☒ a. Cross-origin API access
- ☐ b. Server port binding
- ☐ c. Client certificate validation
- ☐ d. Compression of resources

Question 18

Complete

Mark 1.00 out of 1.00

In React, which hook is used to manage side-effects?

- ☐ a. useReducer
- ☐ b. useContext
- ☒ c. useEffect
- ☐ d. useMemo

Question 19

Complete

Mark 0.00 out of 1.00

Which of the following is a metric used for classification problems?

- ☐ a. Accuracy
- ☒ b. MSE
- ☐ c. RMSE
- ☐ d. MAE

Question 20

Complete

Mark 1.00 out of 1.00

Which of the following is NOT a part of the MERN stack?

- ☐ a. MongoDB
- ☐ b. Node.js
- ☒ c. Ruby on Rails
- ☐ d. Express.js

Question 21

Complete

Mark 0.00 out of 1.00

AUC-ROC is used to:

- ☐ a. Handle imbalanced datasets
- ☐ b. Compute feature importance
- ☒ c. Detect outliers
- ☐ d. Evaluate ranking of predictions

Question 22

Complete

Mark 1.00 out of 1.00

In Random Forest, what is 'bagging'?

- ☐ a. Normalizing predictions
- ☒ b. Training models on bootstrap samples
- ☐ c. Combining gradient boosters
- ☐ d. Using smaller trees

Question 23

Complete

Mark 1.00 out of 1.00

What type of learning does a GAN use?

- ☒ a. Adversarial
- ☐ b. Unsupervised
- ☐ c. Reinforcement
- ☐ d. Supervised

Question 24

Complete

Mark 0.00 out of 1.00

Which of the following is NOT true about decision trees?

- ☐ a. They are prone to overfitting
- ☐ b. They require feature scaling
- ☐ c. They can handle both regression and classification
- ☒ d. They are easy to visualize

Question 25

Complete

Mark 1.00 out of 1.00

What is the primary purpose of middleware in Express.js?

- ☐ a. Secure cookies
- ☒ b. Intercept and modify requests/responses
- ☐ c. Handle file uploads
- ☐ d. Monitor RAM usage

Question 26

Complete

Mark 1.00 out of 1.00

What is the default port for MongoDB?

- ☐ a. 3306
- ☐ b. 8080
- ☐ c. 5432
- ☒ d. 27017

Question 27

Complete

Mark 0.00 out of 1.00

In MongoDB, which data type is used for document `_id`?

- ☐ a. String
- ☐ b. ObjectId
- ☐ c. UUID
- ☒ d. Integer

Question 28

Complete

Mark 1.00 out of 1.00

What does the term "curse of dimensionality" refer to?

- ☐ a. Too few features in model training
- ☐ b. Overfitting in deep learning
- ☒ c. Computational cost of high-dimensional data
- ☐ d. Loss of gradient during backpropagation

Question 29

Complete

Mark 1.00 out of 1.00

What does the 'kernel trick' do in SVM?

- ☐ a. Normalizes features
- ☐ b. Eliminates the need for support vectors
- ☒ c. Allows handling of non-linear separation
- ☐ d. Reduces computation time

Question 30

Complete

Mark 1.00 out of 1.00

What is the primary role of the activation function in a neural network?

- ☐ a. Reduce input dimensionality
- ☐ b. Normalize outputs
- ☒ c. Introduce non-linearity
- ☐ d. Increase gradient flow