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**QUESTION**

Which of the following is a common method for splitting datasets for training and validation?

What is the main goal of data augmentation?

Which technique is NOT commonly used in data augmentation for image data? In image data augmentation, what does flipping horizontally typically help with?

Which method is used to ensure that a neural network does not memorize the training data? What is transfer learning primarily used for?

Which layer(s) are typically fine-tuned in a pre-trained model for transfer learning? Transfer learning is particularly useful when:

What does fine-tuning involve?

In transfer learning, what is the benefit of using a model pre-trained on a large dataset? Which metric is commonly used for evaluating classification models?

What does the ROC curve represent?

Which metric is suitable for imbalanced datasets? In binary classification, what is precision?

What does the confusion matrix provide?

What is a convolutional layer used for in a CNN?

What is the primary purpose of pooling layers in CNNs? Which activation function is most commonly used in CNNs? In a CNN, what does the kernel (filter) do?

What is the main advantage of using CNNs for image classification? Why is pre-processing necessary in medical imaging?

Which technique is commonly used to remove noise from medical images? Normalization in medical image pre-processing helps to:

Data augmentation for medical images might include which of the following? Why is data augmentation particularly important in medical imaging?

Transfer learning is useful in medical imaging because:

Which of the following is a common pre-trained model used for medical imaging tasks? Fine-tuning in medical image analysis often involves:

One challenge of using transfer learning in medical imaging is:

Which strategy is commonly employed after transfer learning for improving model performance o 3D medical images are typically obtained using:

Which of the following is a challenge specific to 3D medical image analysis? What is a common file format for storing 3D medical images?

Which technique is often used for segmenting 3D medical images? In 3D medical imaging, isotropic voxels mean that:

In medical image segmentation, what does the Dice coefficient measure? What is a common challenge in training models with 3D medical images? The purpose of using dropout in CNNs is to:

Batch normalization helps by:

Which of the following is true about deep learning in medical imaging?

For medical image classification, which metric is often more relevant than accuracy? What is an advantage of using 3D CNNs over 2D CNNs for volumetric data?

In the context of medical image segmentation, what does UNet architecture help with? Which framework is popular for implementing deep learning models in medical imaging? For evaluating the segmentation of medical images, which metric is frequently used?

In 3D medical imaging, what is a "slice"?

ution?

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| What is anisotropic voxe  In medical image analy | l resol  sis, wha |  |
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| Why might you choose to use a pre-trained model in medical | | |

t is a "patch"?

imaging? Which technique helps to balance the classes in an imbalanced dataset? Which of the following is NOT a loss function used for image segmentation? What does the term "model overfitting" refer to?

In the context of CNNs, what is "padding"?

In medical imaging, the term "registration" refers to:

What is the purpose of using 3D convolutions in medical image analysis?

A radiologist wants to classify lung nodules in CT scans. Which pre-processing step is crucial? You have limited labeled data for brain tumor segmentation. Which approach would you use? Which method can help reduce computational load when processing 3D medical images?

To improve model generalization in medical imaging, you should: For detecting tumors in MRI images, which metric is most critical?

Which advanced technique can be used to deal with small datasets in medical imaging? In segmentation tasks, why might you use the Tversky index over the Dice coefficient? What is one benefit of using 3D CNNs for volumetric medical image analysis?

Which technique can help in visualizing what a CNN has learned from medical images?

For a multi-class classification problem in medical imaging, which loss function is typically used? Which method is used to improve the interpretability of deep learning models in medical imaging What is 3D reconstruction?

Which algorithm is commonly used in 3D reconstruction from images? What is a point cloud in 3D reconstruction?

Which software is popular for 3D reconstruction? What is photogrammetry?

What is a depth map?

What is the purpose of a depth map?

Which function in OpenCV is used to compute a depth map from stereo images? Stereo vision relies on capturing images from how many different perspectives? What is required for generating a depth map from stereo images?

Which industry widely uses AR for enhancing customer experience by visualizing products? How is AR used in education?

Which application of AR helps in navigation?

In which field is AR used for remote assistance and training? What is one key application of AR in the medical field?

What differentiates VR from AR?

Which device is commonly used for VR experiences? What is Mixed Reality (MR)?

How is MR different from VR and AR?

Which technology overlays digital information on the real world? What is the purpose of camera calibration?

Which OpenCV function is used for camera calibration?

What kind of pattern is commonly used for camera calibration? Which parameter is estimated during camera calibration?

Why is it important to calibrate a camera in computer vision tasks? What is OpenCV?

In stereo vision, what is disparity?

What is the main advantage of using AR in retail? Which of the following is NOT an application of VR? What does 'SfM' stand for in 3D reconstruction?

In the context of camera calibration, what does the term 'intrinsic parameters' refer to? Which aspect of AR can be particularly beneficial for surgeons during operations?

What is the main difference between a depth map and a disparity map?

Which OpenCV function is used to find chessboard corners for camera calibration? What does 'extrinsic parameters' in camera calibration describe?

What is 'dense reconstruction' in 3D modeling?

Which field benefits greatly from 3D reconstruction of archaeological sites? What does 'point cloud registration' refer to?

In 3D reconstruction, what is 'surface reconstruction'?

What is the role of 'bundle adjustment' in 3D reconstruction? What is the purpose of rectifying images in stereo vision?

Which OpenCV function is used to rectify stereo images? In stereo vision, what is the 'baseline'?

What does SGBM stand for in OpenCV?

Which parameter affects the smoothness of the disparity map in OpenCV's StereoSGBM? Which AR application is used for interior design visualization?

How does AR benefit the automotive industry?

Which sector uses AR for maintenance and repair assistance? How is AR utilized in sports broadcasting?

Which AR tool is often used in marketing to engage customers? What is a common use of VR in education?

Which device is essential for an immersive VR experience?

What is an example of MR technology? How does VR help in medical training?

What is the main goal of AR technology in navigation apps? What does the cv2.solvePnP() function do in camera calibration? What is a reprojection error in camera calibration?

Which OpenCV function is used to undistort an image?

Why is a checkerboard pattern preferred for camera calibration? What does the cv2.getOptimalNewCameraMatrix() function do?

What is the primary benefit of using 3D reconstruction in construction? Which of the following is a challenge in 3D reconstruction?

What is the role of texture mapping in 3D reconstruction? What is the main purpose of AR in tourism?

Which AR device can be used for interactive shopping experiences? What does the term 'SLAM' stand for in AR?

In VR development, what is a 'haptic feedback'?

Which of the following is a major ethical concern with AI in healthcare? Why is data security critical in healthcare AI applications?

Which principle is essential for the ethical use of AI in healthcare?

What is a potential consequence of inadequate data security in healthcare AI? Ethical use of AI in healthcare should ensure:

In healthcare AI, bias can lead to:

Which of the following helps mitigate ethical concerns in AI healthcare applications? How can AI transparency benefit healthcare?

What is an ethical issue related to AI decision-making in healthcare? The ethical use of AI in healthcare necessitates:

Which regulatory body oversees medical devices in the United States? What does CE marking signify for medical devices in Europe?

The FDA's regulatory framework for AI in healthcare emphasizes:

Which document outlines the general safety and performance requirements for medical devices in To comply with HIPAA, healthcare AI systems must ensure:

What is a key requirement for AI medical devices under the FDA's regulation? CE marking on a medical device indicates:

Which act in the U.S. focuses on protecting patient health information?

In the EU, which regulation replaced the Medical Device Directive (MDD)? FDA clearance for AI medical devices often requires:

One major challenge in deploying computer vision systems in healthcare is: Interoperability in healthcare IT systems means:

A common practical challenge when implementing AI in healthcare is: Successful deployment of computer vision in healthcare often requires:

Which of the following is crucial for the practical implementation of AI in healthcare?

What is a significant factor in the real-world deployment of computer vision systems in healthcare The effectiveness of computer vision in healthcare can be enhanced by:

What can hinder the practical implementation of AI in healthcare? A key consideration for computer vision systems in healthcare is:

Which strategy is beneficial for overcoming deployment challenges in healthcare AI? In a case study where AI was used for radiology, what was a notable benefit?

What was a key challenge in a real-world deployment of AI for dermatology?

Which sector has seen significant improvement through AI computer vision systems? A real-world application of AI in ophthalmology demonstrated:

In a case study involving AI for pathology, a primary benefit was:

What was a primary outcome in a hospital implementing AI for patient monitoring? In a case study on AI for cancer detection, what was a major finding?

A real-world deployment of AI in emergency care showed: What was a notable result in an AI system used for cardiology? An AI-based system for surgical assistance demonstrated:

Which approach is beneficial for maintaining data privacy in healthcare AI? To ensure ethical AI use, which practice is important?

Legal regulations for AI in healthcare often require: Practical implementation of healthcare AI should prioritize:

A real-world case study on AI for diabetes management revealed: Which ethical principle is critical for AI in healthcare?

Legal compliance for AI in the EU requires adherence to: A major practical challenge in healthcare AI is:

An effective AI system in healthcare should:

AI in medical imaging has demonstrated improvements in: Data privacy in healthcare AI is governed by:

What is a benefit of AI-driven predictive analytics in healthcare? A significant advantage of AI in patient monitoring is: Interoperability challenges in healthcare AI include:

Ethical AI deployment in healthcare requires:

To comply with regulatory requirements, AI systems in healthcare should: A practical step for deploying AI in healthcare is:

Real-world applications of AI in diagnostics have shown: To ensure ethical use, AI in healthcare must be:

AI regulatory compliance in healthcare often involves:

Which challenge is common in implementing AI in clinical settings? AI's impact on healthcare outcomes includes:

In a case study using AI for mental health, what was a notable benefit? Data security in healthcare AI should prioritize:

The ethical principle of beneficence in AI healthcare means:

Legal requirements for AI in healthcare often focus on: A practical benefit of AI in healthcare administration is:

50-50 split

To reduce the dataset size Rotation

Increasing brightness

Data normalization

Training models from scratch

All layers

You have a very large dataset Training a new model from scratch Faster convergence

Mean Squared Error

Relationship between precision and recall Accuracy

TP / (TP + FP)

Accuracy of the model Data normalization

To add non-linearity Sigmoid

Normalizes the data They require less data

To enhance image contrast Gaussian blur

Reduce image size Rotation

To reduce image quality

Medical images are easy to obtain VGG16

Training the entire model from scratch Lack of pre-trained models

Adding more layers X-rays

Lack of image contrast JPEG

Thresholding

All voxel dimensions are equal Classification accuracy

Small dataset sizes Increase model capacity

OPTION 1

Normalizing the input data

It always outperforms traditional methods Sensitivity

Reduced computational cost Classification tasks TensorFlow

Intersection over Union (IoU)

A single 2D image from a 3D volume Equal dimensions in all directions

A small, localized region of an image

To reduce the need for large amounts of labeled data Oversampling the minority class

Cross-Entropy Loss

Model performs well on training data but poorly on unseen data Adding extra layers to the network

Aligning multiple images into a common coordinate system To reduce the model size

Rescaling intensities Train a CNN from scratch Using smaller batch sizes Use a very deep network Precision

GANs (Generative Adversarial Networks) To handle class imbalance

Increased computational efficiency Saliency maps

Binary Cross-Entropy

LIME (Local Interpretable Model-agnostic Explanations) Creating 3D models from 2D images or data

Dijkstra's Algorithm

A collection of 2D images Microsoft Word

The use of photography in mapmaking A color image

To display colors cv2.stereoBM() One

Identical images Automotive

For grading exams

AR gaming Fashion Video editing

VR immerses users in a fully virtual environment, while AR overlays digital content onto the real w Smartphone

A combination of AR and VR elements

It completely ignores physical environments Virtual Reality

To adjust color balance cv2.findContours() Random dots

Shutter speed

To enhance image colors A web browser

The difference in color between two images Lower product costs

Virtual tours

Stereo from Motion

Parameters related to camera position Real-time data overlay on the surgical field

Depth maps show distance directly; disparity maps show pixel difference cv2.findChessboardCorners()

The camera's internal properties A low-resolution model

Fashion design

Aligning multiple point clouds into a single coordinate system Creating a surface model from a point cloud

Refining 3D coordinates to minimize error To align corresponding points horizontally cv2.stereoRectify()

The distance between the stereo cameras Stereo Graphics Benchmark Method blockSize

Pokémon Go

By improving fuel efficiency Healthcare

To create virtual crowds AR books

Writing assignments Smart glasses

Google Cardboard

By providing virtual patient simulations To show 3D maps

Detects edges in an image

The difference between the projected image points and the detected points cv2.warpAffine()

Because it is easy to draw Adjusts the size of an image

Improved worker safety through virtual planning High computational requirements

To create wireframes

To provide virtual souvenirs Smartwatches

Simultaneous Localization and Mapping Visual enhancement

Speed of data processing To enhance user experience Profit maximization

Faster processing times Maximum profit

Improved patient outcomes Limiting data collection

By reducing costs

AI systems being too transparent

Complete autonomy from human oversight European Medicines Agency (EMA)

Compliance with European health, safety, and environmental protection standards Financial profitability

MDR (Medical Device Regulation) Open access to patient data

Use of proprietary algorithms FDA approval

Medical Device Amendments

General Data Protection Regulation (GDPR) Proof of concept

High algorithmic accuracy

Systems can only be used independently Lack of computational power

Isolated systems Minimal data storage

High initial investment Reducing data collection Clear regulatory guidelines Continuous human oversight Isolated system development Slower diagnosis process Lack of patient interest

Retail

Decreased patient satisfaction Enhanced image quality Increased nurse workload

AI could replace oncologists entirely Delays in treatment

Less accurate heart disease predictions Higher surgical error rates

Open data sharing Ignoring patient consent

Continuous human oversight Cost reduction

Increased patient non-compliance Profit maximization

HIPAA

Lack of available technology Replace all human roles Reduced imaging costs EMA

Longer patient wait times Increased hospital readmissions Standardized data formats Ignoring patient feedback Avoid clinical trials

Isolating AI from other systems Decreased diagnostic errors Transparent and accountable Continuous monitoring and reporting Excessive training data

Higher error rates

Reduced therapy success rates Maximum data sharing Prioritizing system efficiency

Profit maximization Increased paperwork

OPTION 2

70-30 split

To increase the diversity of the training set Translation

Dealing with overfitting

Data augmentation

Utilizing a pre-trained model on a new task

Initial layers

You have a small dataset

Adjusting a pre-trained model slightly Higher initial accuracy

Accuracy

True Positive Rate vs. False Positive Rate Precision

TP / (TP + FN)

Errors in the model Feature extraction To combine features Tanh

Aggregates data points They are faster to train

To remove noise and artifacts Histogram equalization

Scale pixel values to a standard range Flipping

To handle large datasets

Medical imaging tasks are very simple ResNet

Only updating the last few layers of a pre-trained model Domain shift between source and target datasets Reducing the dataset size

MRI

High computational cost PNG

Region growing

The voxels have different dimensions

Overlap between predicted and true segments High dimensionality of the data

Reduce overfitting

Normalizing the activations in the network It requires large amounts of labeled data Specificity

Better capture of spatial relationships Generative tasks

PyTorch

Mean Absolute Error A full 3D image

Different dimensions in different directions An entire 3D image

To improve model performance Undersampling the majority class Mean Squared Error

Model performs well on both training and unseen data Adding zeros around the input data

Increasing the contrast of an image

To capture spatial information across all three dimensions Histogram equalization

Use transfer learning with a pre-trained model Downsampling the 3D images

Perform extensive data augmentation Recall

SVM (Support Vector Machine) To improve model speed

Better capture of volumetric features Data augmentation

Mean Squared Error Dropout

Designing 3D games Structure from Motion (SfM) A network of lines

Blender

A 3D modeling technique using images A grayscale image representing depth

To determine the distance of objects from the camera cv2.filter2D()

Two

Images taken from slightly different angles Retail

To create immersive learning experiences

AR medical apps Manufacturing Virtual surgeries

VR uses physical objects, while AR uses only digital interfaces VR headset

A 3D modeling technique

It seamlessly integrates real and virtual worlds Augmented Reality

To remove lens distortion cv2.calibrateCamera() Chessboard

Focal length

To ensure accurate measurements and object recognition A computer vision library

The difference in coordinates of corresponding points Enhanced customer engagement and experience Training simulations

Structure from Motion

Parameters related to the camera's internal characteristics Enhancing the color of the organs

Depth maps are colored; disparity maps are grayscale cv2.cornerHarris()

The camera's orientation and position in space A highly detailed 3D model

Cultural heritage preservation

Collecting data points for a single image Flattening a 3D model into 2D

Adjusting camera settings To change image resolution cv2.resize()

The focal length of the cameras Semi-Global Block Matching numDisparities

IKEA Place

Through AR heads-up displays (HUD) for navigation and safety information Military

For real-time statistics and graphics overlays AR ads and interactive brochures

Virtual field trips VR headset

HoloLens

By tracking surgical tools

To overlay directional information on real-world views Estimates the pose of a 3D object

The error in image resolution cv2.undistort()

Because its corners are easy to detect and identify

Computes the optimal new camera matrix based on a free scaling parameter Lower material costs

Easy data acquisition

To add color and detail to 3D models

To enhance the visitor experience with interactive guides AR glasses

Single Lens Augmented Mapping Auditory cue

Privacy concerns

To comply with marketing standards Data minimization

Increased patient trust Patient privacy and consent Equitable treatment for all Ensuring data accuracy

By improving patient trust AI systems being too fast

Integration with existing marketing strategies Food and Drug Administration (FDA) Certification of energy efficiency

Continuous learning and adaptability

HIPAA (Health Insurance Portability and Accountability Act) Data de-identification and encryption

Periodic updates and re-evaluation European market access Affordable Care Act

In Vitro Diagnostic Regulation (IVDR) Market analysis

Interoperability with existing systems

Systems can share and interpret data seamlessly Resistance from healthcare professionals

End-user training Scalability of solutions

Data integration capabilities Ensuring high-quality data inputs Standardized data formats

High algorithm complexity Collaborative stakeholder engagement Increased diagnostic accuracy

Limited data availability Finance

Improved detection of eye diseases Faster tissue analysis

Improved patient outcomes

AI aided in early detection, improving treatment success Enhanced triage efficiency

Improved prediction of heart attacks

Increased precision and reduced complications Data encryption

Regularly updating AI models Complete autonomy

Rapid deployment

Better blood sugar control Accountability

FDA guidelines

Data interoperability

Support and augment human decision-making Diagnostic accuracy and speed

GDPR

Enhanced preventive care Improved real-time health tracking Fragmented IT infrastructure Continuous system monitoring

Undergo rigorous testing and validation Training healthcare staff

Increased patient anxiety Proprietary and closed Reducing system complexity Integration with legacy systems

Improved accuracy and efficiency

Enhanced early detection of mental health issues Robust encryption methods

Ensuring AI benefits patient welfare

Patient safety and efficacy

Streamlined operations and reduced errors

OPTION 3

80-20 split

To improve the test set accuracy Normalization

Handling varying light conditions

Data splitting

Reducing model complexity

Final layers

You have high computational power Changing the input data format Better generalization

Structural Similarity Index

True Positive Rate vs. True Negative Rate Recall

TN / (TN + FP)

True positives, false positives, true negatives, and false negatives Reducing data dimensions

To downsample the feature maps ReLU

Convolves around the input data to produce feature maps They automatically learn spatial hierarchies of features

To standardize image intensity Fourier transform

Increase image contrast Adding noise

To mitigate the scarcity of labeled medical data

Pre-trained models can help with the limited availability of annotated medical data DenseNet

Freezing all layers of the pre-trained model Excessive training time

Applying domain-specific data augmentation CT scans

Simpler annotation process DICOM

3D Convolutional Neural Networks Voxel intensity is uniform

Model loss

Lack of pre-trained 3D models Speed up training

Reducing the need for data augmentation It can operate without any pre-processing F1 Score

Simplified model architecture Segmentation tasks

Keras

Root Mean Squared Error A part of a 2D image

Same intensity in all directions A noise reduction technique To shorten training time Using weighted loss functions Dice Loss

Model performs poorly on both training and unseen data Increasing the size of the convolutional filters Segmenting regions of interest

To increase the training speed

3D cropping around the lung region Increase dropout rate

Reducing the number of epochs Increase learning rate

F1 Score Random Forests

To simplify the loss function Simpler model architecture Cross-validation

Categorical Cross-Entropy Batch Normalization Drawing 3D shapes by hand Bubble Sort

A set of data points in space Adobe Photoshop

A method for editing photos A 3D model

To filter images cv2.imshow() Three

High-resolution images Agriculture

To write research papers

AR maps Cooking

Diagnostic imaging

VR is used for gaming, while AR is used only for navigation Smartwatch

A video editing software

It uses only text-based interfaces Mixed Reality

To increase resolution cv2.blur()

Stripes

ISO sensitivity

To reduce image size A video editing tool

The distance between the cameras Faster delivery times

Photo editing Surface from Model

Parameters related to lighting conditions Recording the surgery in 4K resolution

Depth maps are used for VR; disparity maps are used for AR cv2.goodFeaturesToTrack()

The camera's lens specifications A 2D image

Sports analytics

Registering new users to use 3D software Texturing a 3D model

Creating 2D images from 3D models To convert images to grayscale cv2.rotate()

The resolution of the images Simplified Gradient-Based Method speckleWindowSize

Snapchat Filters

By reducing manufacturing costs Tourism

To control camera angles AR headphones

Reading e-books Tablet

Oculus Rift

By enhancing x-ray images To provide audio directions Adjusts image brightness The error due to low lighting cv2.GaussianBlur()

Because it is colorful Enhances image contrast Faster project approval Low costs

To simplify models To reduce travel costs Desktop computers

Spatial Linear Adjustment Method Tactile response

Cost of implementation

To protect sensitive patient information Transparency

Data breaches Rapid deployment

Discriminatory practices Implementing robust encryption By accelerating research

Lack of accountability for decisions Regular auditing and monitoring World Health Organization (WHO) Approval for export outside Europe Static algorithms only

GMP (Good Manufacturing Practices) High-speed processing

Free access to source code

Compliance with international standards

Health Insurance Portability and Accountability Act (HIPAA) Medical Device Regulation (MDR)

Clinical evidence of safety and effectiveness Low data requirements

Systems require the same manufacturer Shortage of patient data

Disconnected workflows Maximum human intervention

Stand-alone functionality Limiting system updates

Fragmented healthcare IT systems Limited training data

Focusing only on theoretical models Higher patient fees

Difficulty in image interpretation Healthcare

Increased operational costs Reduced data storage needs Decreased patient safety

AI was less accurate than traditional methods Increased patient complaints

Increased manual record-keeping Longer surgery durations

Limited data usage Avoiding data transparency Minimal clinical testing

Integration with existing systems Lower healthcare costs Exclusivity

MDR

Excessive regulatory clarity Operate independently Longer scan times

IEC

Higher operational costs Reduced use of medical devices Unified coding languages Minimal transparency

Limit updates to once a year Reducing patient interactions Lower adoption rates

Isolated from human oversight Avoiding patient data use

Lack of data privacy regulations Increased patient dissatisfaction Increased need for manual diagnosis Minimal regulatory compliance Maximizing data collection

Reducing system updates Higher operational costs

**OPTION 4**

All of the above

To label the data automatically Zooming

Simulating different viewpoints

Data shuffling Increasing dataset size

Middle layers

You have a simple task

Using more data augmentation techniques All of the above

Dice Coefficient Precision vs. Accuracy F1 Score

TP / (TP + TN)

Loss values Increasing data size

To upsample the feature maps Softmax

Reduces data dimensionality They are easier to implement All of the above

Median filtering Remove image artifacts All of the above

To decrease training time

It requires less computational resources All of the above

Changing the input image format Difficulty in obtaining test data Removing dropout layers

Both B and C Limited use cases BMP

Edge detection

The image has high contrast Pixel intensity

Both A and B

Improve data augmentation

Increasing overfitting

It is easy to interpret the results All of the above

Easier to train

Data augmentation All of the above

Structural Similarity Index

A type of noise reduction technique Enhanced image resolution

A data augmentation method All of the above

All of the above Hinge Loss

Model performs well on unseen data but poorly on training data Reducing the size of the input data

Normalizing the intensity values To simplify the model architecture All of the above

Only use data augmentation Using grayscale images

Use a single validation set Accuracy

Decision Trees

To reduce overfitting Easier to interpret Batch normalization Hinge Loss

Data Augmentation Printing 3D objects A\* Algorithm

A type of texture Final Cut Pro

A process to create 2D drawings A 2D map

To enhance photo resolution cv2.VideoCapture()

Four

Images with different exposures Construction

To design school buildings

AR social media filters Music

Predictive maintenance

VR requires a smartphone, while AR does not Laptop

A type of graphic design

It does not use any visual components 3D Printing

To focus the lens cv2.resize()

Color gradients Aperture size

To increase brightness

A programming language The size of the images Reduced store space Gaming

Shape from Mapping

Parameters related to image resolution Providing audio feedback

There is no difference cv2.findContours() The image resolution A wireframe model Urban planning

Converting 2D images into point clouds Printing a 3D object

Adding textures to models To enhance image contrast cv2.filter2D()

The depth of the image

Standard Geometric Benchmark Model P1 and P2 parameters

Google Maps

Through voice-controlled systems Home entertainment

To edit live footage AR glasses

Online tests Smartphone

PlayStation VR

By storing medical records

VR requires a smartphone, while AR does not Filters noise from an image

The error in image compression cv2.Canny()

Because it is symmetric

Filters out noise from an image Enhanced project documentation Simple algorithms

To reduce file size To book hotels Fitness trackers

Sequential Layered Analysis Model Motion detection

Ease of use

To reduce operational costs Complexity

Enhanced algorithm accuracy Minimal training

Higher efficiency Both b and c

By limiting regulatory scrutiny Excessive data storage

Limiting functionality to specific tasks

International Medical Device Regulators Forum (IMDRF) Endorsement by the European Medical Association Complete automation without oversight

IEC 60601 (International Electrotechnical Commission standards) User-friendly interfaces

Limited clinical testing Cost-effectiveness

Federal Food, Drug, and Cosmetic Act Clinical Trials Regulation

User testimonials Excessive hardware costs

Systems work faster but in isolation Excessive regulatory approvals Manual data entry

Exclusive use of on-premises servers

Limited data sources Avoiding interoperability Continuous system training Narrow scope of application Avoiding patient feedback Reduced need for radiologists

Over-reliance on AI without human oversight Entertainment

Lower accuracy compared to human doctors Lower training requirements for pathologists Reduced hospital stay lengths

AI increased the cost of cancer care Reduced use of AI over time Higher rates of false positives Reduced need for surgical staff Decreased data collection Maximizing data collection Proprietary technology only Exclusive use of AI-driven decisions Decreased accuracy in diagnosis Speed of processing

GMP

Overabundance of training data Limit data usage

Lower patient throughput AHRQ

Decreased patient engagement Higher error rates

Centralized data systems Maximizing proprietary algorithms Focus solely on theoretical research Limiting data collection

Higher costs Cost-focused

Limiting data transparency Overabundance of clinical trials Reduced data security

Lower patient engagement

Limiting patient access to their own data Avoiding patient interaction

Isolating AI systems

Slower administrative processes

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