Cloud Vision API Product Search

Method: images.annotate

Run image detection and annotation for a batch of images.

HTTP request

`POST https://vision.googleapis.com/v1p3beta1/images:annotate`

The URL uses gRPC Transcoding (https://github.com/googleapis/googleapis/blob/master/google/api/http.proto) syntax.

Request body

The request body contains data with the following structure:

JSON representation
{ "requests": [{ object(AnnotateImageRequest (https://cloud.google.com/vision/product-search/docs/reference }] }

Fields	
`requests[]`	`object(AnnotateImageRequest` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#AnnotateImageRequest)) Individual image annotation requests for this batch.

Response body

If successful, the response body contains data with the following structure:

Response to a batch image annotation request.

JSON representation
{ "responses": [{ object(AnnotateImageResponse (https://cloud.google.com/vision/product-search/docs/referenc }] }

Fields	
responses[]	object(AnnotateImageResponse (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#AnnotateImageResponse)) Individual responses to image annotation requests within the batch.

Authorization Scopes

Requires one of the following OAuth scopes:

- `https://www.googleapis.com/auth/cloud-platform`
- `https://www.googleapis.com/auth/cloud-vision`

For more information, see the Authentication Overview (https://cloud.google.com/docs/authentication/).

AnnotateImageRequest

Request for performing Google Cloud Vision API tasks over a user-provided image, with user-requested features.

JSON representation

JSON representation

```
{
  "image": {
    object(Image (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/imag
  },
  "features": [
    {
      object(Feature (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/
    }
  ],
  "imageContext": {
    object(ImageContext (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  }
}
```

Fields

`image`	`object(Image` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Image) `)` The image to be processed.
`features[]`	`object(Feature` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/Feature) `)` Requested features.
`imageContext`	`object(ImageContext` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/ImageContext) `)` Additional context that may accompany the image.

Image

Client image to perform Google Cloud Vision API tasks over.

JSON representation

```
{
  "content": string,
  "source": {
    object(ImageSource (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3bet
  }
}
```

Fields	
`content`	`string (bytes` (https://developers.google.com/discovery/v1/type-format) `format)` Image content, represented as a stream of bytes. Note: As with all `bytes` fields, protobuffers use a pure binary representation, whereas JSON representations use base64. A base64-encoded string.
`source`	`object(ImageSource` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#ImageSource) `)` Google Cloud Storage image location, or publicly-accessible image URL. If both `content` and `source` are provided for an image, `content` takes precedence and is used to perform the image annotation request.

ImageSource

External image source (Google Cloud Storage or web URL image location).

JSON representation

```
{
  "gcsImageUri": string,
  "imageUri": string
}
```

Fields	
`gcsImageUri`	`string` **Use `imageUri` instead.** The Google Cloud Storage URI of the form `gs://bucket_name/object_name`. Object versioning is not supported. See Google Cloud Storage Request URIs (https://cloud.google.com/storage/docs/reference-uris) for more info.
`imageUri`	`string` The URI of the source image. Can be either: 1. A Google Cloud Storage URI of the form `gs://bucket_name/object_name`. Object versioning is not supported. See Google Cloud Storage Request URIs (https://cloud.google.com/storage/docs/reference-uris) for more info. 2. A publicly-accessible image HTTP/HTTPS URL. When fetching images from HTTP/HTTPS URLs, Google cannot guarantee that the request will be completed. Your request may fail if the specified host denies the request (e.g. due to request throttling or DOS prevention), or if Google throttles requests to the site for abuse prevention. You should not depend on externally-hosted images for production applications. When both `gcsImageUri` and `imageUri` are specified, `imageUri` takes precedence.

AnnotateImageResponse

Response to an image annotation request.

JSON representation

```
{
  "faceAnnotations": [
    {
      object(FaceAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1
    }
  ],
```

JSON representation

```
"landmarkAnnotations": [
  {
    object(EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/
  }
],
"logoAnnotations": [
  {
    object(EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/
  }
],
"labelAnnotations": [
  {
    object(EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/
  }
],
"localizedObjectAnnotations": [
  {
    object(LocalizedObjectAnnotation (https://cloud.google.com/vision/product-search/docs/ref
  }
],
"textAnnotations": [
  {
    object(EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/
  }
],
"fullTextAnnotation": {
  object(TextAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3
},
"safeSearchAnnotation": {
  object(SafeSearchAnnotation (https://cloud.google.com/vision/product-search/docs/reference/re
},
"imagePropertiesAnnotation": {
  object(ImageProperties (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p
},
"cropHintsAnnotation": {
  object(CropHintsAnnotation (https://cloud.google.com/vision/product-search/docs/reference/res
},
"webDetection": {
  object(WebDetection (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
},
"productSearchResults": {
  object(ProductSearchResults (https://cloud.google.com/vision/product-search/docs/reference/re
},
```

JSON representation

```
  "error": {
    object(Status (https://cloud.google.com/vision/product-search/docs/reference/rest/Shared.Types/
  },
  "context": {
    object(ImageAnnotationContext (https://cloud.google.com/vision/product-search/docs/reference
  }
}
```

Fields	
`faceAnnotations[]`	`object(`FaceAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#FaceAnnotation))` If present, face detection has completed successfully.
`landmarkAnnotations[]`	`object(`EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#EntityAnnotation))` If present, landmark detection has completed successfully.
`logoAnnotations[]`	`object(`EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#EntityAnnotation))` If present, logo detection has completed successfully.
`labelAnnotations[]`	`object(`EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#EntityAnnotation))` If present, label detection has completed successfully.

Fields	
`localizedObjectAnnotations[]`	`object(`LocalizedObjectAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#LocalizedObjectAnnotation)`)` If present, localized object detection has completed successfully. This will be sorted descending by confidence score.
`textAnnotations[]`	`object(`EntityAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#EntityAnnotation)`)` If present, text (OCR) detection has completed successfully.
`fullTextAnnotation`	`object(`TextAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextAnnotation)`)` If present, text (OCR) detection or document (OCR) text detection has completed successfully. This annotation provides the structural hierarchy for the OCR detected text.
`safeSearchAnnotation`	`object(`SafeSearchAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#SafeSearchAnnotation)`)` If present, safe-search annotation has completed successfully.
`imagePropertiesAnnotation`	`object(`ImageProperties (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#ImageProperties)`)` If present, image properties were extracted successfully.

Fields	
`cropHintsAnnotation`	`object(`CropHintsAnnotation (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#CropHintsAnnotation))` If present, crop hints have completed successfully.
`webDetection`	`object(`WebDetection (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebDetection))` If present, web detection has completed successfully.
`productSearchResults`	`object(`ProductSearchResults (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#ProductSearchResults))` If present, product search has completed successfully.
`error`	`object(`Status (https://cloud.google.com/vision/product-search/docs/reference/rest/Shared.Types/Operation#Status))`  If set, represents the error message for the operation. Note that filled-in image annotations are guaranteed to be correct, even when `error` is set.
`context`	`object(`ImageAnnotationContext (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#ImageAnnotationContext))` If present, contextual information is needed to understand where this image comes from.

FaceAnnotation

A face annotation object contains the results of face detection.

JSON representation

```
{
  "boundingPoly": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "fdBoundingPoly": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "landmarks": [
    {
      object(Landmark (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ],
  "rollAngle": number,
  "panAngle": number,
  "tiltAngle": number,
  "detectionConfidence": number,
  "landmarkingConfidence": number,
  "joyLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/referenc
  "sorrowLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/refer
  "angerLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/refere
  "surpriseLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/re
  "underExposedLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/do
  "blurredLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/ref
  "headwearLikelihood": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/re
}
```

Fields

Fields	
`boundingPoly`	`object(`BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly)`)` The bounding polygon around the face. The coordinates of the bounding box are in the original image's scale, as returned in **`ImageParams`**. The bounding box is computed to "frame" the face in accordance with human expectations. It is based on the landmarker results. Note that one or more x and/or y coordinates may not be generated in the **`BoundingPoly`** (the polygon will be unbounded) if only a partial face appears in the image to be annotated.

`fdBoundingPoly`	`object(`BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly)`)`
	
	The **`fdBoundingPoly`** bounding polygon is tighter than the **`boundingPoly`**, and encloses only the skin part of the face. Typically, it is used to eliminate the face from any image analysis that detects the "amount of skin" visible in an image. It is not based on the landmarker results, only on the initial face detection, hence the
	
	`fd`
	
	(face detection) prefix.

`landmarks[]`	`object(`Landmark (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Landmark)`)` Detected face landmarks.
`rollAngle`	`number` Roll angle, which indicates the amount of clockwise/anti-clockwise rotation of the face relative to the image vertical about the axis perpendicular to the face. Range [-180,180].

Fields	
`panAngle`	`number` Yaw angle, which indicates the leftward/rightward angle that the face is pointing relative to the vertical plane perpendicular to the image. Range [-180,180].
`tiltAngle`	`number` Pitch angle, which indicates the upwards/downwards angle that the face is pointing relative to the image's horizontal plane. Range [-180,180].
`detectionConfidence`	`number` Detection confidence. Range [0, 1].
`landmarkingConfidence`	`number` Face landmarking confidence. Range [0, 1].
`joyLikelihood`	`enum(`Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood) `)` Joy likelihood.
`sorrowLikelihood`	`enum(`Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood) `)` Sorrow likelihood.
`angerLikelihood`	`enum(`Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood) `)` Anger likelihood.

Fields	
`surpriseLikelihood`	`enum(`**Likelihood** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)`)` Surprise likelihood.
`underExposedLikelihood`	`enum(`**Likelihood** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)`)` Under-exposed likelihood.
`blurredLikelihood`	`enum(`**Likelihood** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)`)` Blurred likelihood.
`headwearLikelihood`	`enum(`**Likelihood** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)`)` Headwear likelihood.

Landmark

A face-specific landmark (for example, a face feature).

JSON representation

```
{
  "type": enum(Type (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/i
  "position": {
    object(Position (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/i
  }
}
```

Fields	
type	enum(Type (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Type)) Face landmark type.
position	object(Position (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Position)) Face landmark position.

Type

Face landmark (feature) type. Left and right are defined from the vantage of the viewer of the image without considering mirror projections typical of photos. So, `LEFT_EYE`, typically, is the person's right eye.

Enums	
UNKNOWN_LANDMARK	Unknown face landmark detected. Should not be filled.
LEFT_EYE	Left eye.
RIGHT_EYE	Right eye.
LEFT_OF_LEFT_EYEBROW	Left of left eyebrow.
RIGHT_OF_LEFT_EYEBROW	Right of left eyebrow.
LEFT_OF_RIGHT_EYEBROW	Left of right eyebrow.
RIGHT_OF_RIGHT_EYEBROW	Right of right eyebrow.
MIDPOINT_BETWEEN_EYES	Midpoint between eyes.
NOSE_TIP	Nose tip.
UPPER_LIP	Upper lip.

Enums	
LOWER_LIP	Lower lip.
MOUTH_LEFT	Mouth left.
MOUTH_RIGHT	Mouth right.
MOUTH_CENTER	Mouth center.
NOSE_BOTTOM_RIGHT	Nose, bottom right.
NOSE_BOTTOM_LEFT	Nose, bottom left.
NOSE_BOTTOM_CENTER	Nose, bottom center.
LEFT_EYE_TOP_BOUNDARY	Left eye, top boundary.
LEFT_EYE_RIGHT_CORNER	Left eye, right corner.
LEFT_EYE_BOTTOM_BOUNDARY	Left eye, bottom boundary.
LEFT_EYE_LEFT_CORNER	Left eye, left corner.
RIGHT_EYE_TOP_BOUNDARY	Right eye, top boundary.
RIGHT_EYE_RIGHT_CORNER	Right eye, right corner.
RIGHT_EYE_BOTTOM_BOUNDARY	Right eye, bottom boundary.
RIGHT_EYE_LEFT_CORNER	Right eye, left corner.
LEFT_EYEBROW_UPPER_MIDPOINT	Left eyebrow, upper midpoint.
RIGHT_EYEBROW_UPPER_MIDPOINT	Right eyebrow, upper midpoint.
LEFT_EAR_TRAGION	Left ear tragion.
RIGHT_EAR_TRAGION	Right ear tragion.
LEFT_EYE_PUPIL	Left eye pupil.
RIGHT_EYE_PUPIL	Right eye pupil.
FOREHEAD_GLABELLA	Forehead glabella.
CHIN_GNATHION	Chin gnathion.

Enums	
`CHIN_LEFT_GONION`	Chin left gonion.
`CHIN_RIGHT_GONION`	Chin right gonion.

Position

A 3D position in the image, used primarily for Face detection landmarks. A valid Position must have both x and y coordinates. The position coordinates are in the same scale as the original image.

JSON representation

```
{
  "x": number,
  "y": number,
  "z": number
}
```

Fields	
`x`	`number` X coordinate.
`y`	`number` Y coordinate.
`z`	`number` Z coordinate (or depth).

Likelihood

A bucketized representation of likelihood, which is intended to give clients highly stable results across model upgrades.

Enums	
UNKNOWN	Unknown likelihood.
VERY_UNLIKELY	It is very unlikely that the image belongs to the specified vertical.
UNLIKELY	It is unlikely that the image belongs to the specified vertical.
POSSIBLE	It is possible that the image belongs to the specified vertical.
LIKELY	It is likely that the image belongs to the specified vertical.
VERY_LIKELY	It is very likely that the image belongs to the specified vertical.

EntityAnnotation

Set of detected entity features.

JSON representation

```
{
  "mid": string,
  "locale": string,
  "description": string,
  "score": number,
  "confidence": number,
  "topicality": number,
  "boundingPoly": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "locations": [
    {
      object(LocationInfo (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3
    }
  ],
  "properties": [
    {
      object(Property (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ]
}
```

Fields	
`mid`	`string` Opaque entity ID. Some IDs may be available in Google Knowledge Graph Search API (https://developers.google.com/knowledge-graph/).
`locale`	`string` The language code for the locale in which the entity textual `description` is expressed.
`description`	`string` Entity textual description, expressed in its `locale` language.
`score`	`number` Overall score of the result. Range [0, 1].
`confidence (deprecated)`	`number` ⚠ This item is deprecated! **Deprecated. Use `score` instead.** The accuracy of the entity detection in an image. For example, for an image in which the "Eiffel Tower" entity is detected, this field represents the confidence that there is a tower in the query image. Range [0, 1].
`topicality`	`number` The relevancy of the ICA (Image Content Annotation) label to the image. For example, the relevancy of "tower" is likely higher to an image containing the detected "Eiffel Tower" than to an image containing a detected distant towering building, even though the confidence that there is a tower in each image may be the same. Range [0, 1].
`boundingPoly`	`object(BoundingPoly` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly) `)` Image region to which this entity belongs. Not produced for `LABEL_DETECTION` features.

Fields	
`locations[]`	**`object(`**[**`LocationInfo`**](https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#LocationInfo)**`)`** The location information for the detected entity. Multiple **`LocationInfo`** elements can be present because one location may indicate the location of the scene in the image, and another location may indicate the location of the place where the image was taken. Location information is usually present for landmarks.
`properties[]`	**`object(`**[**`Property`**](https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Property)**`)`** Some entities may have optional user-supplied **`Property`** (name/value) fields, such a score or string that qualifies the entity.

LocationInfo

Detected entity location information.

JSON representation

`{`
`  "latLng": {`
`  object(`**`LatLng`** (https://cloud.google.com/vision/product-search/docs/reference/rest/Shared.Types/
`  }`
`}`

Fields	
`latLng`	**`object(`**[**`LatLng`**](https://cloud.google.com/vision/product-search/docs/reference/rest/Shared.Types/LatLng)**`)`** lat/long location coordinates.

Property

A `Property` consists of a user-supplied name/value pair.

JSON representation

```
{
  "name": string,
  "value": string,
  "uint64Value": string
}
```

Fields

`name`	**`string`** Name of the property.
`value`	**`string`** Value of the property.
`uint64Value`	**`string`** Value of numeric properties.

LocalizedObjectAnnotation

Set of detected objects with bounding boxes.

JSON representation

```
{
  "mid": string,
  "languageCode": string,
  "name": string,
  "score": number,
  "boundingPoly": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  }
}
```

Fields	
`mid`	`string` Object ID that should align with EntityAnnotation mid.
`languageCode`	`string` The BCP-47 language code, such as "en-US" or "sr-Latn". For more information, see http://www.unicode.org/reports/tr35/#Unicode_locale_identifier (http://www.unicode.org/reports/tr35/#Unicode_locale_identifier).
`name`	`string` Object name, expressed in its **`languageCode`** language.
`score`	`number` Score of the result. Range [0, 1].
`boundingPoly`	`object(`BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly) `)` Image region to which this object belongs. This must be populated.

TextAnnotation

TextAnnotation contains a structured representation of OCR extracted text. The hierarchy of an OCR extracted text structure is like this: TextAnnotation -> Page -> Block -> Paragraph -> Word -> Symbol Each structural component, starting from Page, may further have their own properties. Properties describe detected languages, breaks etc.. Please refer to the `TextAnnotation.TextProperty` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextProperty) message definition below for more detail.

JSON representation

JSON representation

```
{
  "pages": [
    {
      object(Page (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/ima
    }
  ],
  "text": string
}
```

Fields	
`pages[]`	`object(`Page (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Page))` List of pages detected by OCR.
`text`	`string` UTF-8 text detected on the pages.

Page

Detected page from OCR.

JSON representation

JSON representation

```
{
  "property": {
    object(TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "width": number,
  "height": number,
  "blocks": [
    {
      object(Block (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/im
    }
  ],
  "confidence": number
}
```

Fields

`property`	`object(`TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextProperty))` Additional information detected on the page.
`width`	`number` Page width. For PDFs the unit is points. For images (including TIFFs) the unit is pixels.
`height`	`number` Page height. For PDFs the unit is points. For images (including TIFFs) the unit is pixels.
`blocks[]`	`object(`Block (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Block))` List of blocks of text, images etc on this page.
`confidence`	`number` Confidence of the OCR results on the page. Range [0, 1].

TextProperty

Additional information detected on the structural component.

JSON representation

<pre>{
  "detectedLanguages": [
  {
  object(**DetectedLanguage** (https://cloud.google.com/vision/product-search/docs/reference/rest/
  }
  ],
  "detectedBreak": {
  object(**DetectedBreak** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3b
  }
}</pre>

Fields	
`detectedLanguages[]`	**object(DetectedLanguage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#DetectedLanguage)) A list of detected languages together with confidence.
`detectedBreak`	**object(DetectedBreak** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#DetectedBreak)) Detected start or end of a text segment.

DetectedLanguage

Detected language for a structural component.

JSON representation

JSON representation

```
{
  "languageCode": string,
  "confidence": number
}
```

Fields	
`languageCode`	`string` The BCP-47 language code, such as "en-US" or "sr-Latn". For more information, see http://www.unicode.org/reports/tr35/#Unicode_locale_identifier (http://www.unicode.org/reports/tr35/#Unicode_locale_identifier).
`confidence`	`number` Confidence of detected language. Range [0, 1].

DetectedBreak

Detected start or end of a structural component.

JSON representation

```
{
  "type": enum(BreakType (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3b
  "isPrefix": boolean
}
```

Fields	
`type`	`enum(`BreakType (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#BreakType)) Detected break type.

Fields	
`isPrefix`	**`boolean`** True if break prepends the element.

BreakType

Enum to denote the type of break found. New line, space etc.

Enums	
`UNKNOWN`	Unknown break label type.
`SPACE`	Regular space.
`SURE_SPACE`	Sure space (very wide).
`EOL_SURE_SPACE`	Line-wrapping break.
`HYPHEN`	End-line hyphen that is not present in text; does not co-occur with `SPACE`, `LEADER_SPACE`, or `LINE_BREAK`.
`LINE_BREAK`	Line break that ends a paragraph.

Block

Logical element on the page.

JSON representation

JSON representation

```
{
  "property": {
    object(TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "boundingBox": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "paragraphs": [
    {
      object(Paragraph (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3bet
    }
  ],
  "blockType": enum(BlockType (https://cloud.google.com/vision/product-search/docs/reference/rest/
  "confidence": number
}
```

Fields

`property`	`object(`TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextProperty))` Additional information detected for the block.

Fields	

boundingBox	object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly))
	
	 The bounding box for the block. The vertices are in the order of top-left, top-right, bottom-right, bottom-left. When a rotation of the bounding box is detected the rotation is represented as around the top-left corner as defined when the text is read in the 'natural' orientation. For example:
	
	 • when the text is horizontal it might look like:
	
	 `0----1`
	`|  |`
	`3----2`
	
	 • when it's rotated 180 degrees around the top-left corner it becomes:
	
	 `2----3`
	`|  |`
	`1----0`
	
	 and the vertex order will still be (0, 1, 2, 3).

paragraphs[]	object(Paragraph (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Paragraph)) List of paragraphs in this block (if this blocks is of type text).
blockType	enum(BlockType (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#BlockType)) Detected block type (text, image etc) for this block.
confidence	number Confidence of the OCR results on the block. Range [0, 1].

Paragraph

Structural unit of text representing a number of words in certain order.

JSON representation

```
{
  "property": {
    object(TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "boundingBox": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "words": [
    {
      object(Word (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/ima
    }
  ],
  "confidence": number
}
```

Fields	
property	object(TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextProperty)) Additional information detected for the paragraph.
boundingBox	object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly)) The bounding box for the paragraph. The vertices are in the order of top-left, top-right, bottom-right, bottom-left. When a rotation of the bounding box is detected the rotation is represented as around the top-left corner as defined when the text is read in the 'natural' orientation. For example: * when the text is horizontal it might look like: 0----1 | | 3----2 * when it's rotated 180 degrees around the top-left corner it becomes: 2----3 | | 1----0 and the vertex order will still be (0, 1, 2, 3).

Fields	
`words[]`	`object(`**Word** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Word)) List of words in this paragraph.
`confidence`	`number` Confidence of the OCR results for the paragraph. Range [0, 1].

Word

A word representation.

JSON representation

```
{
  "property": {
    object(TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "boundingBox": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "symbols": [
    {
      object(Symbol (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/i
    }
  ],
  "confidence": number
}
```

Fields

Fields	
`property`	`object(`TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextProperty)`)` Additional information detected for the word.
`boundingBox`	`object(`BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly)`)` The bounding box for the word. The vertices are in the order of top-left, top-right, bottom-right, bottom-left. When a rotation of the bounding box is detected the rotation is represented as around the top-left corner as defined when the text is read in the 'natural' orientation. For example: * when the text is horizontal it might look like: 0----1 | | 3----2 * when it's rotated 180 degrees around the top-left corner it becomes: 2----3 | | 1----0 and the vertex order will still be (0, 1, 2, 3).
`symbols[]`	`object(`Symbol (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Symbol)`)` List of symbols in the word. The order of the symbols follows the natural reading order.
`confidence`	`number` Confidence of the OCR results for the word. Range [0, 1].

Symbol

A single symbol representation.

JSON representation

JSON representation

```
{
  "property": {
    object(TextProperty (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "boundingBox": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "text": string,
  "confidence": number
}
```

Fields

`property`	`object(TextProperty` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#TextProperty)) Additional information detected for the symbol.
`boundingBox`	`object(BoundingPoly` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly)) The bounding box for the symbol. The vertices are in the order of top-left, top-right, bottom-right, bottom-left. When a rotation of the bounding box is detected the rotation is represented as around the top-left corner as defined when the text is read in the 'natural' orientation. For example: * when the text is horizontal it might look like: 0----1 | | 3----2 * when it's rotated 180 degrees around the top-left corner it becomes: 2----3 | | 1----0 and the vertice order will still be (0, 1, 2, 3).
`text`	`string` The actual UTF-8 representation of the symbol.
`confidence`	`number` Confidence of the OCR results for the symbol. Range [0, 1].

BlockType

Type of a block (text, image etc) as identified by OCR.

Enums	
UNKNOWN	Unknown block type.
TEXT	Regular text block.
TABLE	Table block.
PICTURE	Image block.
RULER	Horizontal/vertical line box.
BARCODE	Barcode block.

SafeSearchAnnotation

Set of features pertaining to the image, computed by computer vision methods over safe-search verticals (for example, adult, spoof, medical, violence).

JSON representation

```
{
  "adult": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p
  "spoof": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p
  "medical": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v
  "violence": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/
  "racy": enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3
}
```

Fields

Fields	
adult	enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)) Represents the adult content likelihood for the image. Adult content may contain elements such as nudity, pornographic images or cartoons, or sexual activities.
spoof	enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)) Spoof likelihood. The likelihood that an modification was made to the image's canonical version to make it appear funny or offensive.
medical	enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)) Likelihood that this is a medical image.
violence	enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)) Likelihood that this image contains violent content.
racy	enum(Likelihood (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Likelihood)) Likelihood that the request image contains racy content. Racy content may include (but is not limited to) skimpy or sheer clothing, strategically covered nudity, lewd or provocative poses, or close-ups of sensitive body areas.

ImageProperties

Stores image properties, such as dominant colors.

JSON representation

```
{
  "dominantColors": {
    object(DominantColorsAnnotation (https://cloud.google.com/vision/product-search/docs/referen
  }
}
```

Fields	
dominantColors	**object(DominantColorsAnnotation** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#DominantColorsAnnotation)) If present, dominant colors completed successfully.

DominantColorsAnnotation

Set of dominant colors and their corresponding scores.

JSON representation

```
{
  "colors": [
    {
      object(ColorInfo (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3bet
    }
  ]
}
```

Fields

Fields	
`colors[]`	`object(`[`ColorInfo`](https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#ColorInfo)`)` RGB color values with their score and pixel fraction.

ColorInfo

Color information consists of RGB channels, score, and the fraction of the image that the color occupies in the image.

JSON representation

```
{
  "color": {
    object(Color (https://cloud.google.com/vision/product-search/docs/reference/rest/Shared.Types/C
  },
  "score": number,
  "pixelFraction": number
}
```

Fields	
`color`	`object(`[`Color`](https://cloud.google.com/vision/product-search/docs/reference/rest/Shared.Types/Color)`)` RGB components of the color.
`score`	`number` Image-specific score for this color. Value in range [0, 1].
`pixelFraction`	`number` The fraction of pixels the color occupies in the image. Value in range [0, 1].

CropHintsAnnotation

Set of crop hints that are used to generate new crops when serving images.

JSON representation

<pre>{
  "cropHints": [
    {
      object(**CropHint** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ]
}</pre>

Fields	
`cropHints[]`	**object(CropHint** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#CropHint) **)** Crop hint results.

CropHint

Single crop hint that is used to generate a new crop when serving an image.

JSON representation

<pre>{
  "boundingPoly": {
    object(**BoundingPoly** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "confidence": number,
  "importanceFraction": number
}</pre>

Fields

Fields	
`boundingPoly`	`object(`BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly)`)` The bounding polygon for the crop region. The coordinates of the bounding box are in the original image's scale, as returned in `ImageParams`.
`confidence`	`number` Confidence of this being a salient region. Range [0, 1].
`importanceFraction`	`number` Fraction of importance of this salient region with respect to the original image.

WebDetection

Relevant information for the image from the Internet.

JSON representation

JSON representation

```
{
  "webEntities": [
    {
      object(WebEntity (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3bet
    }
  ],
  "fullMatchingImages": [
    {
      object(WebImage (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ],
  "partialMatchingImages": [
    {
      object(WebImage (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ],
  "pagesWithMatchingImages": [
    {
      object(WebPage (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/
    }
  ],
  "visuallySimilarImages": [
    {
      object(WebImage (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ],
  "bestGuessLabels": [
    {
      object(WebLabel (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ]
}
```

Fields

`webEntities[]`	**object(WebEntity** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebEntity) **)** Deduced entities from similar images on the Internet.

Fields	
`fullMatchingImages[]`	**object(WebImage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebImage)) Fully matching images from the Internet. Can include resized copies of the query image.
`partialMatchingImages[]`	**object(WebImage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebImage)) Partial matching images from the Internet. Those images are similar enough to share some key-point features. For example an original image will likely have partial matching for its crops.
`pagesWithMatchingImages[]`	**object(WebPage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebPage)) Web pages containing the matching images from the Internet.
`visuallySimilarImages[]`	**object(WebImage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebImage)) The visually similar image results.
`bestGuessLabels[]`	**object(WebLabel** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebLabel)) The service's best guess as to the topic of the request image. Inferred from similar images on the open web.

WebEntity

Entity deduced from similar images on the Internet.

JSON representation

```
{
  "entityId": string,
  "score": number,
  "description": string
}
```

Fields	
`entityId`	`string` Opaque entity ID.
`score`	`number` Overall relevancy score for the entity. Not normalized and not comparable across different image queries.
`description`	`string` Canonical description of the entity, in English.

WebImage

Metadata for online images.

JSON representation

```
{
  "url": string,
  "score": number
}
```

Fields	
`url`	`string` The result image URL.

Fields	
`score`	`number` (Deprecated) Overall relevancy score for the image.

WebPage

Metadata for web pages.

JSON representation

```
{
  "url": string,
  "score": number,
  "pageTitle": string,
  "fullMatchingImages": [
    {
      object(WebImage (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ],
  "partialMatchingImages": [
    {
      object(WebImage (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta
    }
  ]
}
```

Fields	
`url`	`string` The result web page URL.
`score`	`number` (Deprecated) Overall relevancy score for the web page.
`pageTitle`	`string` Title for the web page, may contain HTML markups.

Fields	
`fullMatchingImages[]`	`object(`**WebImage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebImage)`)` Fully matching images on the page. Can include resized copies of the query image.
`partialMatchingImages[]`	`object(`**WebImage** (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#WebImage)`)` Partial matching images on the page. Those images are similar enough to share some key-point features. For example an original image will likely have partial matching for its crops.

WebLabel

Label to provide extra metadata for the web detection.

JSON representation

```
{
  "label": string,
  "languageCode": string
}
```

Fields	
`label`	`string` Label for extra metadata.
`languageCode`	`string` The BCP-47 language code for **`label`**, such as "en-US" or "sr-Latn". For more information, see http://www.unicode.org/reports/tr35/#Unicode_locale_identifier (http://www.unicode.org/reports/tr35/#Unicode_locale_identifier).

ProductSearchResults

Results for a product search request.

JSON representation

```
{
  "indexTime": string,
  "results": [
    {
      object(Result (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/i
    }
  ],
  "productGroupedResults": [
    {
      object(GroupedResult (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p
    }
  ]
}
```

Fields	
`indexTime`	`string (Timestamp` (https://developers.google.com/protocol-buffers/docs/reference/google.protobuf#google.protobuf.Timestamp) `format)` Timestamp of the index which provided these results. Changes made after this time are not reflected in the current results. A timestamp in RFC3339 UTC "Zulu" format, accurate to nanoseconds. Example: "`2014-10-02T15:01:23.045123456Z`".
`results[]`	`object(Result` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Result) `)` List of results, one for each product match.

Fields	
`productGroupedResults[]`	`object(`GroupedResult (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#GroupedResult))` List of results grouped by products detected in the query image. Each entry corresponds to one bounding polygon in the query image, and contains the matching products specific to that region. There may be duplicate product matches in the union of all the per-product results.

Result

Information about a product.

JSON representation

`{`
`  "product": {`
`  object(Product (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/pr`
`  },`
`  "score": number,`
`  "image": string`
`}`

Fields	
`product`	`object(`Product (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products#Product))` The Product.
`score`	`number` A confidence level on the match, ranging from 0 (no confidence) to 1 (full confidence).

Fields	
`image`	`string` The resource name of the image from the product that is the closest match to the query.

GroupedResult

Information about the products similar to a single product in a query image.

JSON representation

```
{
  "boundingPoly": {
    object(BoundingPoly (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3be
  },
  "results": [
    {
      object(Result (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/i
    }
  ]
}
```

Fields	
`boundingPoly`	`object(BoundingPoly` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/projects.locations.products.referenceImages#BoundingPoly) `)` The bounding polygon around the product detected in the query image.
`results[]`	`object(Result` (https://cloud.google.com/vision/product-search/docs/reference/rest/v1p3beta1/images/annotate#Result) `)` List of results, one for each product match.

ImageAnnotationContext

If an image was produced from a file (e.g. a PDF), this message gives information about the source of that image.

JSON representation

```
{
  "uri": string,
  "pageNumber": number
}
```

Fields

uri	**string** The URI of the file used to produce the image.
pageNumber	**number** If the file was a PDF or TIFF, this field gives the page number within the file used to produce the image.

Last updated December 10, 2018.