

Enhance Your Platform with Image Recognition-Powered Features for Travelers

By Janet Wagner

Most travelers today use travel review and booking sites to research nearly every aspect of a trip, from destinations and hotel accommodations to local tourist attractions and events. Travelers rely heavily on the user-generated reviews and photos found on popular travel review and booking sites such as Airbnb, Booking.com, Travelocity, Trip.com, and TripAdvisor.

User-generated photos are especially influential when it comes to the traveler decision-making process; the information conveyed in user-generated visual content is often more authentic and convincing than textual information. And reviews that include photos are more likely to be genuine because photos of a travel-related venue such as a hotel, restaurant, resort, or spa are [harder to fake](#).

Travel review and booking companies could use AI-powered image recognition to add new and engaging features to their platforms; features that could inspire and assist travelers as well as attract new users. This article highlights how travel review, booking, and hospitality companies could benefit from adding to sites and applications image recognition capabilities powered by AI.

Help Travelers Plan Dream Vacations with Visual Search

Every day, millions of travelers share photos of travel destinations, dream vacations, and leisure activities on visual media sites like Instagram and Pinterest, not to mention travel review sites such as Trip.com, TripAdvisor, and Yelp. User-generated visual content is a gold mine of consumer information. Travel-related companies could leverage that information using AI-powered image recognition, creating new and innovative visual content-based features that help travelers plan dream vacations.

For example, travel review and booking companies could use image recognition to add advanced visual search capabilities to their platforms. Travelers could drag and drop travel photos into a visual search box that returns truly relevant and inspiring travel photos. Using combined search, search that uses an image and tags, travelers could refine their search, finding travel photos that are not only highly relevant but also extremely accurate. Visual search is an engaging and useful feature that can help boost user engagement, attract new visitors, and increase conversions.

Help Potential Travelers Research and Discover Amazing Destinations

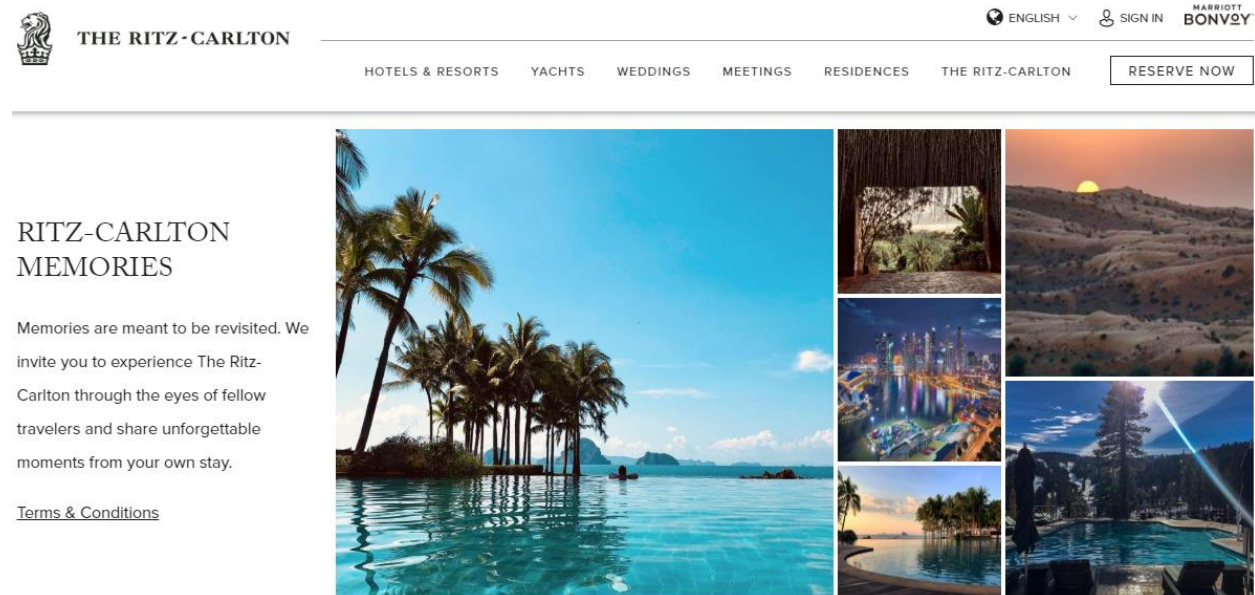
Millions of consumers count on popular travel review sites like Trip.com and TripAdvisor to help them discover amazing destinations and research nearly every aspect of a trip. Consumers expect these sites to provide comprehensive information about destinations, hotels, restaurants, and other travel-related venues.

Travel review sites can use AI-powered image recognition to automatically tag and classify user-generated and professionally created travel photos. Automatic image tagging and classification helps

make destinations, attractions, activities, and other areas of travel discoverable by a larger set of potential search terms.

Travel review and booking companies could use image recognition to create platform features that leverage user-generated visual content to provide an enhanced travel search and research experience for users. Travel review and booking sites that provide easy and enjoyable travel research experiences are more likely to attract new users, increase conversions, and encourage repeat visitors.

Validate and Showcase Real Guest Experiences



The Ritz-Carlton [website](#) features 30,000 pages of imagery and information, including user-generated photos. These photos can be found in "Ritz-Carlton Memories" sections displayed on numerous pages of the site.

Genuine user-generated reviews are important to consumers, especially reviews accompanied by photos. According to a TripAdvisor [survey](#), 76% of TripAdvisor users agree their booking decision was influenced by user-generated photos.

Showcasing authentic user-generated content allows travel review sites and hospitality companies such as hotels, restaurants, and resorts to provide social proof and validation of guest experiences. Social proof and validation of positive guest experiences help build brand trust and loyalty. Travel review and hospitality companies could create, publish, and curate photo galleries based on automatically tagged and classified user-generated photos. Galleries could be categorized and organized in a way that would inspire potential travelers to use specific venues for weddings, honeymoons, parties, vacations, and other events.

For example, the Ritz-Carlton website [features](#) roughly 30,000 pages of imagery and information. A key feature of the site is "Ritz-Carlton Memories," a section featuring user-generated photos showcasing guest travel experiences. This feature is included on numerous pages of the site, and visitors can find user-generated photos organized based on [traveler interests](#).

Search For and Find Travel Content in Video

There is a wealth of information buried within the content of video (and images), and the number of videos posted online every day is staggering. YouTube alone [receives](#) an estimated 400 hours of new video *every minute*.

At a Facebook Global Hackathon, a team of developers (sponsored by Clarifai) used the Clarifai API to create an [application](#) capable of searching within YouTube videos, allowing users to find content such as narration (speech), text, and images. Using Clarifai, user-generated video platforms could make it possible for users to search for and find within videos specific types of content and concepts. For example, travelers could search within videos to find travel-related information such as hiking trails, tourist attractions, ski and beach resorts, luxury hotels, and more.

The ability to search within videos is a feature most video and travel platform users would find extremely valuable, a feature that could help boost user engagement and conversions.

Create an Image Recognition-Powered Chatbot for Travelers

Chatbots are popular right now, and the number of companies jumping on the chatbot bandwagon continues to skyrocket. Chatbots can be a useful and engaging feature as they allow users to interact with applications conversationally via voice-activated interface or keypad.

A number of travel industry companies have implemented chatbots on their websites and applications. For example, Booking.com [launched](#) a Booking Assistant Chatbot that is designed to answer frequently asked questions from customers. The chatbot answers questions for a variety of topics including pet policies, WiFi and internet availability, transportation, parking information, and arrival and departure times.

Travel review and booking companies like Booking.com could use image recognition to enhance their chatbot-powered applications. For example, chatbot applications could be updated so that users could employ advanced voice-activated search queries to find hotel information before booking a reservation. Users could ask these applications questions such as “which hotels in Paris allow pets and offer free Wi-Fi” or “show me photos of hotels in London that have an indoor pool.” The applications could then return the requested information accompanied by relevant photos.

Travel review and booking companies could enhance their platforms and applications with image recognition and chatbot technologies to provide users with highly personalized travel research capabilities that could help them save time on travel research and help boost overall user engagement.

What Makes Clarifai Different?

Clarifai is an AI-powered visual recognition platform capable of automatically recognizing, identifying, and tagging billions of photos and videos. Clarifai's core visual recognition model is capable of identifying 11,000+ general concepts such as objects, scenes, events, and emotions. Specialized recognition models are available for categories such as not suitable for work (NSFW), weddings, travel,

and food. Clarifai also features multi-language support recognizing objects, emotions, and themes in many languages including English, Chinese, French, German, Italian, Japanese, and Spanish.

Clarifai provides an easy-to-use API empowering developers and businesses to build intelligent applications capable of automatically recognizing, identifying, and tagging concepts contained in the content of images, animated gifs, and video; concepts such as nature, urban, seasons, animals, transportation, buildings, vehicles, emotions, indoors, outdoors, and much more.

Our platform features custom training capabilities which enable users to build custom models that can “teach” Clarifai’s AI to understand any concept. Clarifai also helps customers build custom visual recognition solutions unique to their business.

Clarifai's Travel Image Recognition Model



Travel	
PREDICTED CONCEPT	PROBABILITY
Lounge	0.940
Bar	0.902
Game Room	0.886
Fireplace	0.587
Casino	0.498
Living Room	0.435
Food & Beverages	0.365
Communal Areas	0.358

Clarifai’s travel image recognition model can identify features of hotels, resorts, spas, and other travel-related properties. Check out the [live demo](#). – Photo by [Sarah Götze](#) on [Unsplash](#)

The [travel image recognition model](#) is one of the specialized recognition [models](#), known as domain models, provided by Clarifai. Clarifai’s travel image recognition model is capable of automatically recognizing, identifying, and tagging travel-related concepts in both images and video.

The travel image recognition model is ideal for travel, leisure, and hospitality industry platforms and applications that rely on user-generated and professionally created photos and videos. Travel and hospitality companies such as Booking.com, Travelocity, Trip.com, and TripAdvisor could use Clarifai’s core visual recognition model along with the travel image recognition model to add innovative and engaging travel-related features to their platforms, features that could help increase platform value, boost conversions, and expand the user base.

Powered by Deep Learning

Clarifai uses deep learning-based computer vision to provide a highly scalable, fast, and accurate image and video recognition platform.

What is deep learning-based computer vision and why is it important?

Computer vision is a discipline that involves the development and use of machine learning, deep learning, and other intelligent algorithms to perform visual recognition tasks such as image recognition, video recognition, optical character recognition (OCR), image classification, and scene understanding.

Deep learning is the layman's term for neural networks, the most common being convolutional neural networks (CNNs or ConvNets). Neural networks are a set of intelligent algorithms capable of automatically learning [feature representations](#) from labeled data, and often unlabeled data. The ability to automatically learn feature representations eliminates, in many cases, the need for the difficult and time-consuming task of [manual feature selection](#). Unlike most traditional algorithms, deep learning algorithms are highly scalable, making it possible to build massive neural networks. The more data fed into and processed by a large neural network, the better the network performs.

Recent advances in artificial intelligence and the use of CNNs to improve computer vision tasks have allowed companies like Clarifai to build platforms capable of automatically recognizing, identifying, and tagging billions of photos and videos with amazing accuracy and in near real time.

Visual Content Inspires Potential Travelers

Visual content is one of the best ways to inspire and influence current and potential travelers. Authentic reviews provided by other travelers, especially reviews accompanied by photos, can greatly influence a traveler's decisions regarding destinations, attractions, hotel accommodations, restaurants, activities, and more.

Using image recognition, travel review, hospitality booking, and other travel-related companies could leverage the photos from authentic user-generated reviews to create amazing platform and application features that provide engaging and enjoyable travel research experiences.