AVR SPOT
AR&VR experts

CASE STUDY

3D Photogrammetry for a Dutch Startup

AVRspot

The Story Behind

By working on a augmented reality menu solution, Kabaq's competitor found it challenging to create 3D food models for 3D food menu locally.

Moreover, the ingenious and innovative nature of this project required vast expertise in 3D reconstruction and photogrammetry.

So, the client decided to look for a strong partner to support the entire modeling process. They needed an associate who could enthusiastically contribute to the project and create real-looking 3D food models.

The client chose AVRspot for the best cost/value balance as well as extensive expertise in 3D modeling and photogrammetry.

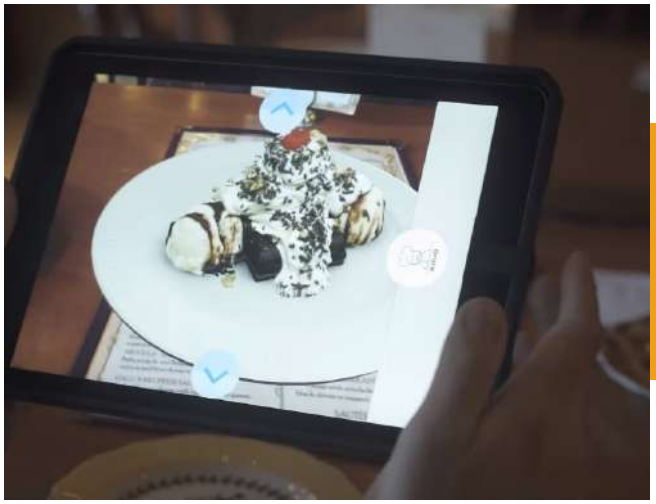
Challenge

The client required accurate, high-quality 3D models created from raw photographs. The pictures needed a high level of precision and accuracy to facilitate the work of the 3D artists.

Virtual food displays would consist of multiple digital renderings and actual photographs combined by a unique method of photogrammetry. Making image reconstruction, sculpting wrong details and restoring missing texture parts was especially challenging, due to the complexity of the objects on the photographs.

Challenge

As a result, 3D models turned out to be of immense value to 3D food menu owners; it attractively visualizes dishes and allows restaurants to advertise new cuisine in an effective way.



Scope of Service

- Shooting;
- Image Correction & Conversion,
- Reconstruction;
- Quality Assurance

Tools and Technologies:

- RealityCapture;
- Agisoft Photoscan

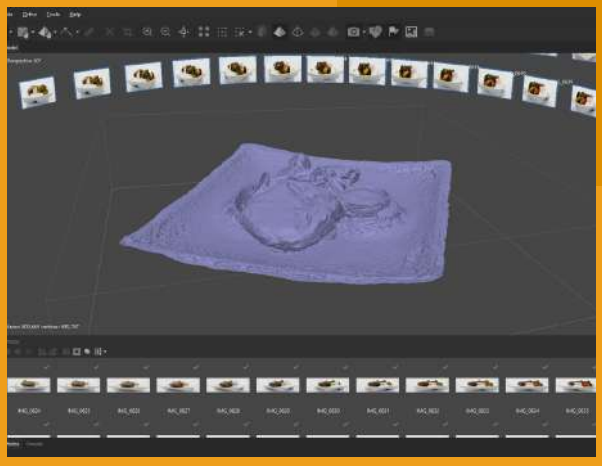
Solution

A highly skilled team of AVRspot 3D artists came up with an idea to implement 37 3D food models for AR menu that will allow users to see tasty dishes from all sides and angles. As soon as users examine the plate with a dessert or a salad they can be sure - food they are going to order will look as beautiful as they see it on the menu. All models dimensions are identical to the food they represent, displaying an accurate representation of both appearance and portion.

How we did it

The range of services provided by AVRspot covers 3D models development and includes shooting, image correction, and conversion, reconstruction, and model bug fixing. Prior to taking series of shots, the challenge of scene setup and lighting setup was resolved.

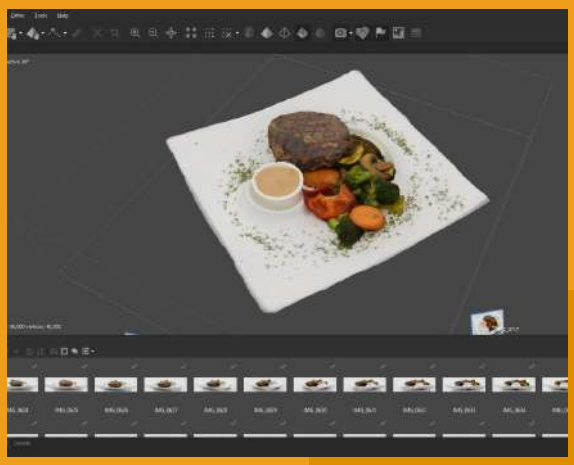
Image correction and conversion comprised color correction and color balance. The last stages of the 3D modeling were reconstruction and quality assurance.

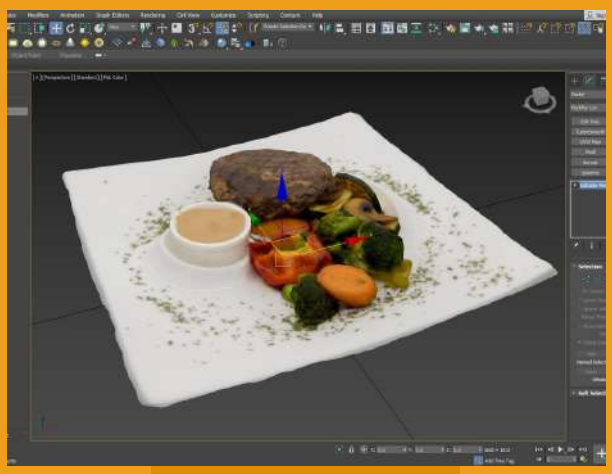


How we did it

Moreover, we provided regular updates to the client to clarify if there were issues regarding 3D models that had been created.

In general, the whole pipeline included capturing images of the food from various angles, stitching them together to form complete 3D models, and placing them in a new augmented reality menu.





Benefits

- 3D modeling allows bringing high quality augmented reality menus to restaurants and online food services everywhere.
- With 3D modeling technique, AR apps are given a generous selection of viewing options allowing customers to view the model from virtually any angle.
- This gives a clear preview of a menu item's size, texture, and ingredients.
- 3D models of dishes can help overcome language and cultural barriers preventing visitors from exploring new ethnic dishes.

Results

Skilled employees, state-of-the-art approach, and vast domain expertise helped AVRspot successfully deliver high-quality 3D models for a Dutch startup.

About AVRspot

AVRspot helps clients transform their businesses by providing virtual and augmented technology solutions.

We solve sophisticated issues with creative strategy and large-scale engineering. By applying design-driven prototyping approach in combination with proven project management techniques our highly qualified team delivers outstanding digital solutions and content to our clients.

Our team of experts provide AR/VR Consulting, Product Design & Implementation, and Usability Testing. Moreover, we have experience in cross-border collaboration and virtual teams.