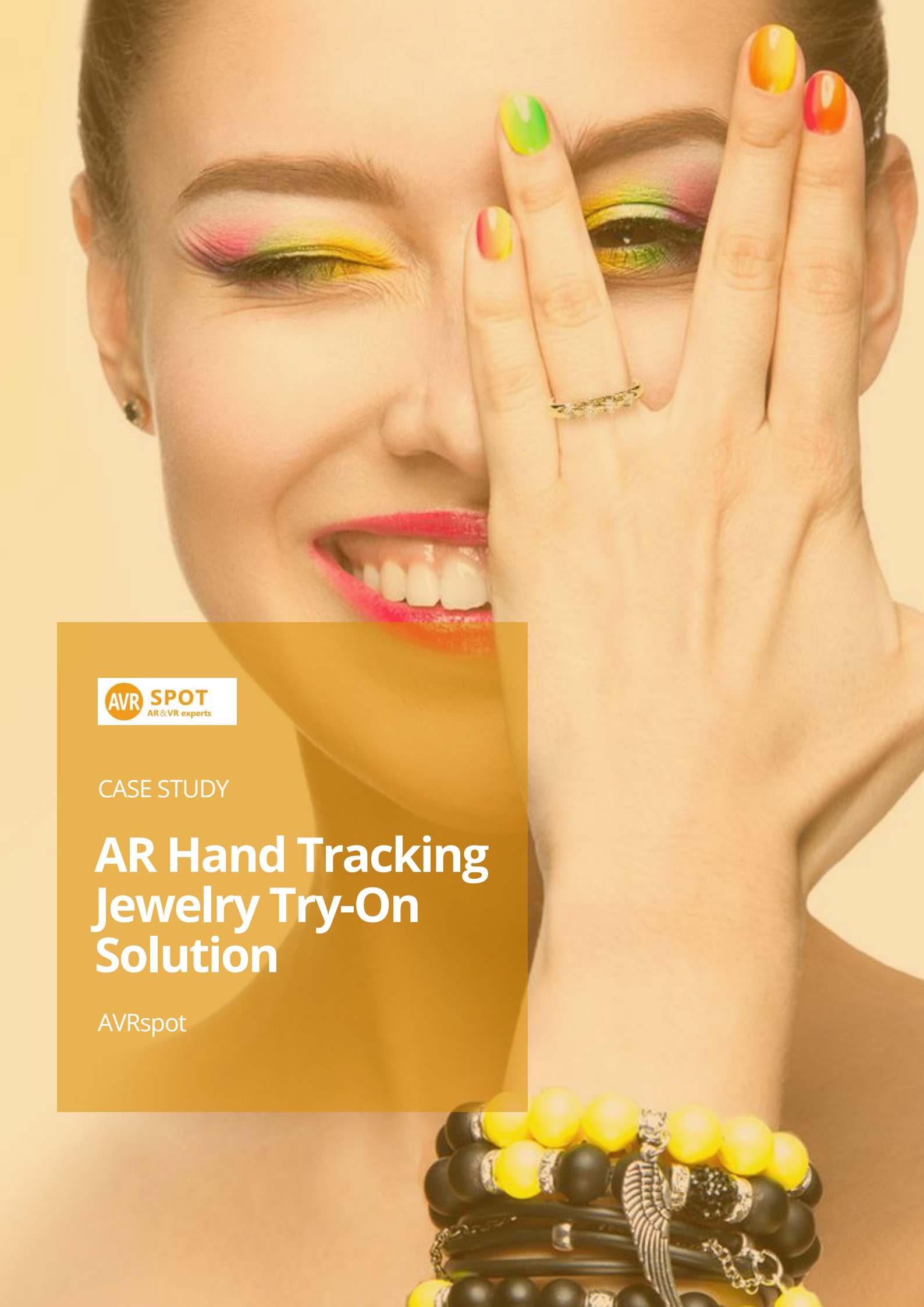
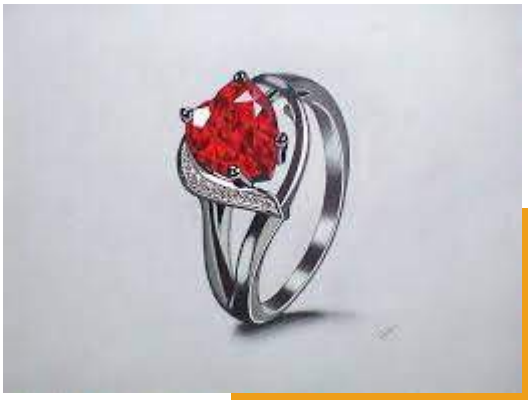
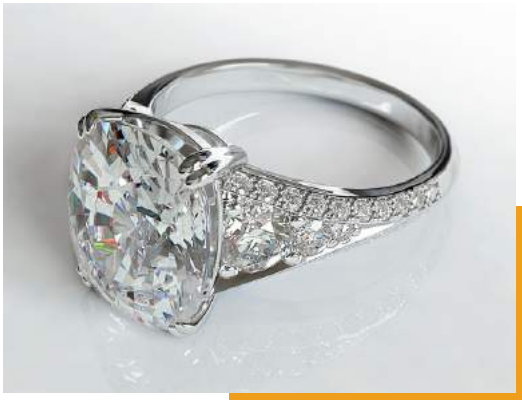


CASE STUDY

AR Hand Tracking Jewelry Try-On Solution

AVRspot





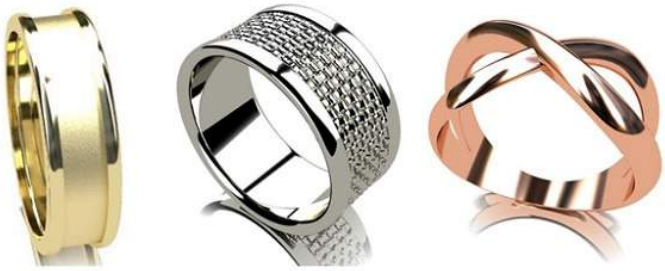
Background

AR Hand Tracking Application is an efficient solution that allows your customers to buy jewelry through an interactive AR or MR interface. As a result, buyers get the required service and guidance when picking up a bracelet or a ring without previously visiting the store.

To implement AR Hand Tracking Application, AVRspot put together all the needed features and interactive instructions to empower you with a comprehensive tool that helps increase sales.

Challenge

The application would be oriented at a great variety of end-users, so the interface should be easy and intuitive, so none of the clients would need special training to use it. We were to create highly realistic 3D models of the jewelry allowing buyers to see the smallest details of rings like in a real store. As well as purchasing exclusive jewelry, customers would scan their hands to identify a piece that suits them best.



Scope of Service

- 3D models creation;
- Architecture Implementation;
- Quality Assurance.

Tools and Technologies:

- OpenCV;

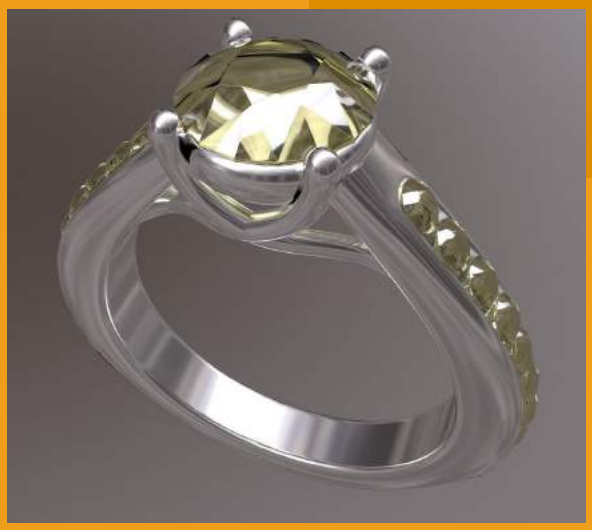
Platforms:

- iOS
- Android

Solution

AVRspot developed a fully usable application for iOS and Android, including jewelry modeling, UI, computer vision algorithms implementation, and testing. The application has been developed using OpenCV and blop algorithm.

AVRspot's Hand Tracking Application not only offers delightful and immersive experiences for buyers, but it also enables customers to see whether jewelry looks great on their hands, allowing each customer to make the right choice.



How we did it

For an AR hand tracking development we opted for OpenCV and color blob algorithm. In computer vision, blob detection methods are aimed at detecting regions in a digital image that differ in properties, such as brightness or color, compared to surrounding regions. In our situation, we've applied this method to detect colors of the hand and calculate the median. After the color was defined by an app, it ultimately would cut other colors out.

We took the contour that matches a hand with fingers spread, for the app to detect each finger and place rings. The app only recognizes a hand with fingers spread slightly apart.

The user lays his hand on a table, sets his phone over the hand, projects the phone camera on the hand and pickups the ring to try. By detecting each finger potential buyers can easily try on jewelry and choose the best item.

Benefits

- Delivering better brand awareness;
- Bringing top-notch experiences to customers;
- displaying jewelry items along with extra information;
- invoking desire and need while trying on jewelry;
- Creating interactive product catalogs with AR;
- Getting higher win rates as consumers can better visualize products.

Results

The team of AVRspot's experts designed & created applications for Android and iOS platforms that allow users to virtually wear and buy desired jewelry.

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.