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With the advent of technology, it is becoming increasingly common to see visually appealing images with ultrahigh resolution. Photography is no longer restricted to dedicated digital cameras. We have cameras embedded with nearly every smartphone readily available in our hands. As a result, we share photos over billions of photos per year on social media platforms.

Photography in social media platforms is an integral aspect feature in applications like Snapchat, Facebook and Instagram. Each of these photo sharing applications leverage photos to connect creative and non-creative people around the world. Furthermore, the visual collection of their images allows users to engage and connect with their audience.

Our application *PictureComposer* is a creative tool that aims to provide creators help in capturing visually striking pictures. We derive data from images generated in Instagram, Flickr and other photo sharing applications to analyze and provide the user with real-time feedback and suggesting improvements to their photos included but not limited to composition, lighting, exposure, and focus. Other photo applications on the other hand such as VSCO only focus on suggesting photo filters. As such, users will receive suggested improvements to the composition of their photos based on highly curated photos which has never been done before. Our application will provide the four main features:

*Real-time Subject Tracking and Photo Grading Feedback:* Using real-time object detection, the user can visualize and track where the subject of their photos will be. Fundamentals such as aligning the camera to the horizon and adjusting overexposed or underexposed scenes will be suggested to the user. Users choose the category of the subject such as a dog or a mountain they intend to capture and upload for a letter grade feedback. The letter grade breaks down into different sections to improve the photo based on collected images of the same category. Sections include composition placement, subject alignment, exposure and lighting quality. For example, the user may be suggested to align the photo to the right of the frame to improve the composition of the photo.

*Photo Suggestions:* Our photo application provides the top three curated similar photos and expands on the photo grading feedback to further validate feedback suggestions.

*Popularity Analysis:* Feedback will include the popularity analysis of the user captured image based on the same subject category. Our application provides popularity rating predictions on the photo based on how it will perform on different platforms like Instagram, Flickr, and Facebook. This aspect is intended to provide users with improvements in the professional industry and gain insight on feedback that will boost user engagements.

*Personalized Photo Account:* Users can create an account where previous photos will be stored on our database. Photo Grading feedback will reference to this and keep track of user improvements throughout the collection of their photos.