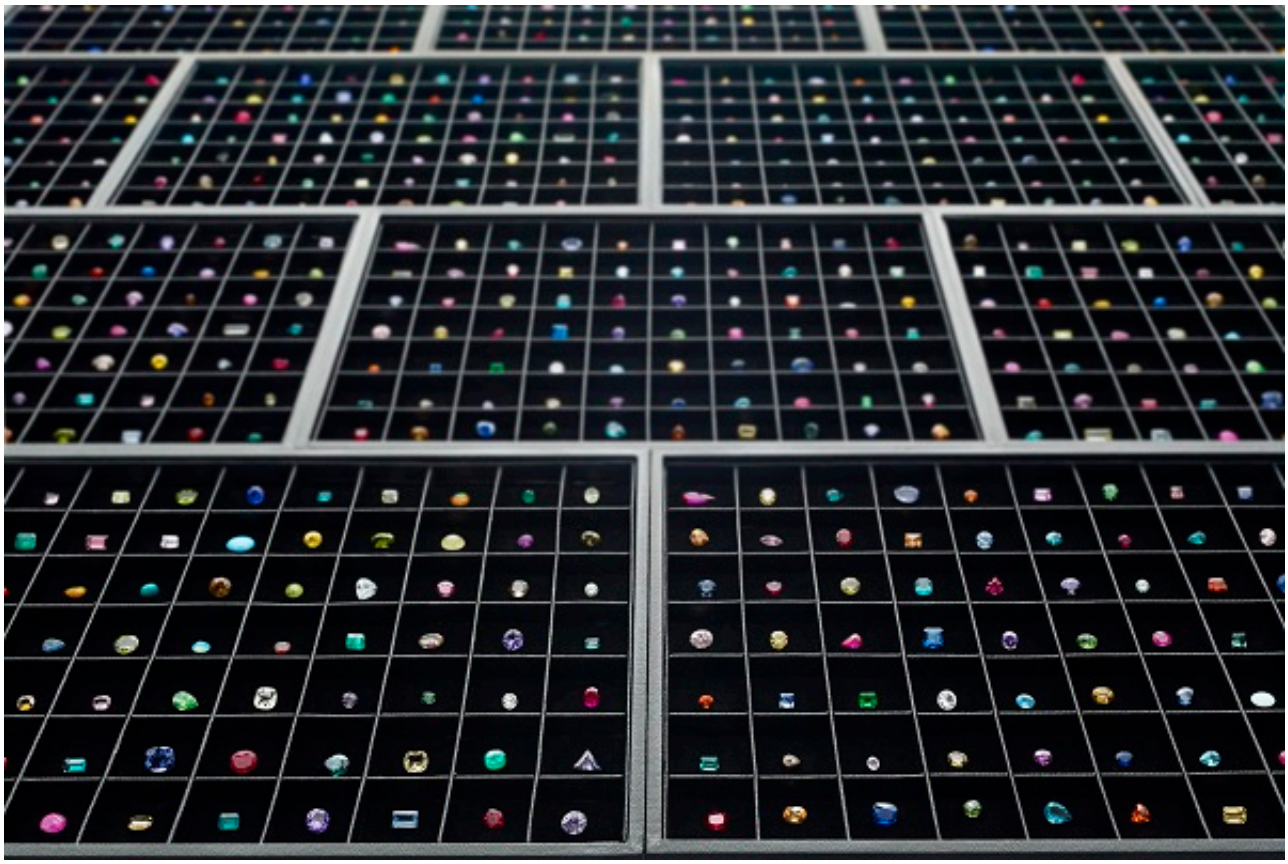
Gübelin Taps Machine Learning for Gem Analysis



RAPAPORT... Gübelin Gem Lab has partnered with the Swiss Center for Electronics and Microtechnology (CSEM) to apply artificial intelligence to its gemstone analysis.

Determining a gemstone's authenticity and country of origin currently relies heavily on human judgment, Gübelin noted Wednesday. By collaborating with CSEM, the Swiss lab will use machine learning to increase the reliability of its data interpretation, reduce human error, and save time, it said.

"The main benefit of deploying machine-learning methods in gemology is to increase the consistency of gem-lab results and raise both the public's and industry's trust in their gemstones and jewelry, while also enabling the scalability of gem-testing services," explained Daniel Nyfeler, Gübelin's managing director.

The project will develop algorithms trained to evaluate standard characteristics of gemstones using data from tens of thousands of gemstones that clients have submitted to Gübelin for testing since the 1970s, as well as from the lab's 27,000-stone collection of reference gems. The organizations have received Swiss government funding for the venture.

The move follows the Gemological Institute of America's collaboration with IBM, which seeks to use artificial intelligence to grade diamonds' clarity.

Image: Gübelin’s collection of reference stones. (Gübelin Gem Lab)