Seed round for Visometry – stable tracking for industrial AR solutions with VisionLib

The Fraunhofer-Gesellschaft and the HTGF are taking a stake in the AR startup Visometry GmbH, a spinoff of Fraunhofer IGD. With its VisionLib engine, the startup has been providing AR tracking that has already been proved in the industry since 2017. The software development kit unites native CAD and 3D data in an automated workflow with image processing. With seed financing, the startup seeks to expand the functionality of the base technology and increase the potential uses of the software into sector solutions.

(Darmstadt) Model tracking as a key technology—not just for classic AR applications

The VisionLib engine, developed at the Fraunhofer Institute for Computer Graphics Research IGD and marketed since 2017 by Visometry GmbH, uses what are referred to as model tracking processes. Scientists at Fraunhofer IGD have been researching AR technology for over 15 years, and many customers are already making use of the innovative tracking process. What makes VisionLib special is its reliable and stable object detection. The difference from consumer AR solutions that are already available lies in the direct use of native CAD datasets for marker-free, model-based 3D object tracking. This greatly distinguishes the Darmstadt-developed software from current AR software. In order to display digital content seamlessly and as part of reality, current computer vision processes produce only a rough reconstruction of the user’s environment based on the situation and the AR overlays only interact with the environment itself or with objects to a limited degree. Low-light environments or dynamic scenarios with heavy movement are a challenge for stable and precise object detection and tracking in the industrial setting. “This is where most industrial AR applications come up short. With our technology, on the other hand, we can bring the content to the objects with precision,” explained Dr. Harald Wuest, managing director of Visometry GmbH.

High utility in industry 4.0

This technology will open up entirely new possibilities. Changes in the object
will become directly visible during the assembly process, moving parts such as doors and hatches will be tracked in real time. The context will be captured exactly so augmented content can respond to the change and steadily track during movement. “The Fraunhofer technology is so interesting because developers of industrial AR applications need stable tracking even in changing lighting situations. VisionLib is a universal tracking solution that is, at the same time, robust, accurate and easy to integrate,” said Matthias Unbescheiden, deputy director of Fraunhofer IGD. “By licensing our VisionLib technology to Visometry GmbH, we guarantee the market direct access to our technology.”

About Visometry
Visometry GmbH is a startup that offers basic augmented reality technology, services and special solutions. Founded in 2017 as a spinoff of Fraunhofer IGD, the company may be young, but the founders and team together have over 15 years of R&D experience in these fields. With their VisionLib product, the company offers augmented reality tracking on an industrial scale: The engine allows for precise “multi-object tracking” in an automated workflow from CAD to AR. Uniting image processing and CAD with a focus on AR solutions to advance industry is the mission statement of this new company in Hessen.

Contact
Visometry GmbH
Dr. Harald Wuest
Fraunhoferstr. 5
64283 Darmstadt, Germany
Phone: +49 6151 155 273
info@visometry.com
www.visionlib.com

About Fraunhofer Venture
Fraunhofer Venture is a core department of the Fraunhofer-Gesellschaft and partners with founders, startups, Fraunhofer institutes, industry and investors. With access to Fraunhofer technology, infrastructure and know-how with over 7,000 patent families, it offers young companies the opportunity to establish
themselves on the market with their products better and sooner.

Fraunhofer Venture’s business activities comprise total support and consultation, from idea to founding, assistance with seeking financing to a possible sale of the company, and are flanked by various funding programs and other offerings.

More detailed information can be found at:

Photo: Stable tracking is required for industrial AR applications. Tracking makes it possible to precisely determine the position of objects in a camera image. (Usage rights: Fraunhofer IGD)
Institute Profile

Founded 30 years ago, Fraunhofer IGD has become the world's leading institution for applied research in the field of visual computing. Visual computing means image and model-based IT. In simple terms, it describes the capability of transforming information into images (computer graphics) and extracting information from images (computer vision). The numerous application scenarios include human/machine interaction, interactive simulation, and modeling situations.

Our developers at the sites in Darmstadt, Rostock, Graz, and Singapore develop new technical solutions and prototypes all the way up to the market readiness stage. In collaboration with our partners, this results in application solutions that are custom-tailored to customer requirements.

Our approaches facilitate the work with computers and are efficiently used in the industry, in everyday life, and in the healthcare sector. Our research highlights includes assisting people in the Industry 4.0, the development of key technologies for the Smart City, and the use of digital solutions in the field of Individual Health.

Through applied research, we support the strategic development of the industry and economy. Especially small and medium-sized enterprises as well as service centers can benefit from this and be successful on the market with the help of our leading technologies.