

YES.

We'll show you how at Fraunhofer.

INTERESTED IN AR, VR AND MEDICAL VISUALIZATION?
JOIN US FOR A

BACHELOR'S OR MASTER'S THESIS

Architecture for AR and VR in Medical Visualization

AR/VR (collectively known as XR) as a technology and its usage to communicate complex information in fields such as engineering, science and medicine has gained a lot of momentum over the last years. At MEVIS, XR has been used in a few projects, mainly using a very custom interface from our prototyping platform MeVisLab to the Microsoft HoloLens. But we see AR and VR as an important technology to transport the results of all the work done at MEVIS into the clinic, and, ultimately, into the OR. To achieve this and to stay independent of certain hardware, we want to explore various possibilities for abstraction of the communication between MeVisLab and AR or VR devices. For that, various possibilities for a suited architecture should be explored:

- Exploration of the OpenXR standard by the Khronos group and development of a concept for the integration of OpenXR into MeVisLab
- Exploration of tight integration with existing engines such as Unreal to exploit existing XR authoring abilities
- Exemplary implementation of selected applications and interaction techniques

What we expect from you

- Student of computer science or similar field of study
- Experience in programming (C++)
- Experience with and interest in AR/VR, computer graphics and visualization

What you can expect from us

- A friendly working environment close to the University of Bremen
- Self-determined work and the freedom to co-create new tasks
- Work within a young and interdisciplinary team of software developers and image processing researchers

Fraunhofer MEVIS is one of the leading global and internationally networked research and development centers for computer assistance in image-based medicine. It follows a patient-centered and workflow-oriented approach to resolve clinically relevant issues in image-based diagnosis and therapy.

For questions regarding this topic, please contact

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