We are Austria's largest Research and Technology Organisation and an international player in the research areas that we cover. This makes us a leading development partner for industry and a top employer in the scientific community. Our Center for Digital Safety & Security is seeking to hire a new Ingenious Partner for our location in Vienna. Applications are invited for a:

Master Thesis "High Speed Ray-Tracing on Graphic Cards"

Ray tracing is an important tool for 5G channel modelling for both mm-Wave high bitrate links as well as ultra-reliable low-latency communications (URLLC). The accuracy of ray tracing comes at high computational complexity.

Description

- You use modern GPU techniques to achieve a fast implementation.
- You translate the MATLAB code of an existing ray-tracing tool into a GPU, C or C++ environment in order to significantly reduce the simulation time.
- You validate the implementation by comparison with measurements of real-world radio propagation channels.

Candidate profile

- Academic studies of electrical engineering, telecommunication engineering, computer science or similar
- excellent know-how in digital signal processing, wireless radio channels and propagation mechanisms
- Good knowledge and experience with GPU programming, C or C++
- Very good knowledge of either German or English (fluent in spoken and written)

Your compensation:
EUR 697,69 gross per month for 20 hours/week based on the collective agreement (Forschungs-KV).

Please submit your application documents, including certificates, to

Mrs. Mag. Marie Theres Raberger, MSc, Recruiting
jobline@ait.ac.at, www.ait.ac.at
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