

Two Open PhD Positions in Scientific Visualization Vienna, Austria

We are offering two PhD positions in Vienna, Austria in the field of scientific visualization. One open position is at the **Institute of Computer Graphics and Algorithms**, Vienna University of Technology; another open position is at the **VRVis Research Center**. Both PhD positions are available immediately

Institute of Computer Graphics and Algorithms

In a basic research project called *ViMaL* (“*The Visualization Mapping Language*”, funded by the FWF), we will investigate visualization mapping methods incorporating domain semantics. The aim of this project is the specification and implementation of a visualization mapping language and other knowledge assisted visualization algorithms. Existing visualization algorithms (implemented in our software framework VolumeShop) will be used to fully explore the capabilities of the visualization mapping language.

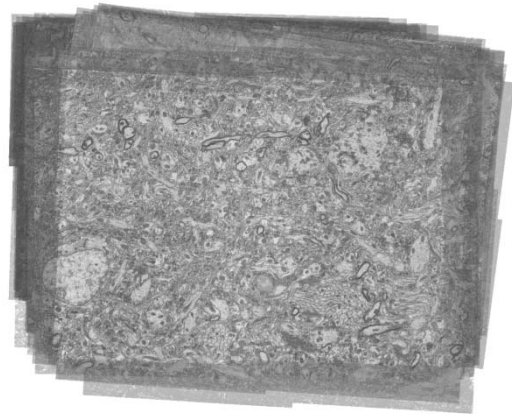
The work will be supervised by Prof. M. E. Gröller, at Vis-Group, Institute of Computer Graphics and Algorithms. Salaries are according to the rates of the Austrian Science foundation: www.fwf.ac.at/de/projects/personalkostensaetze.html. Currently there are about thirty people including professors, PhDs, and graduate students working at our Institute. We provide a very stimulating and highly enjoyable working environment in a competitive, internationally oriented research group. Information on current and recent visualization research projects is available at www.cg.tuwien.ac.at/research/vis.



VRVis Research Center

The VRVis Research Center is seeking to fill a full-time PhD research position in scientific visualization, in the scope of the research project *SCALE-VS: Research on the Scalability and Confluence of Scientific Visualization and Interactive Segmentation*, funded by the Vienna Science and Technology Fund WWTF (www.wwf.at/projects/research_projects/details/index.php?PKEY=978_DE_O&lang=EN).

Scientific supervision will be in collaboration with Prof. Eduard Gröller, Institute of Computer Graphics and Algorithms (ICGA), TU Vienna, and Prof. Markus Hadwiger, VRVis / Geometric Modeling and Scientific Visualization Research Center, KAUST. We investigate scalable algorithms and visualization systems for petascale volume data, such as those obtained by the Harvard Center for Brain Science, which are extremely large (hundreds of terabytes) volumes of brain tissue obtained via high-resolution Electron Microscopy. Work will be performed in the NeuroTrace framework for petascale neuroscience visualization on GPUs and GPU clusters, which is jointly being developed by Harvard University, VRVis, TU Vienna, and KAUST. At VRVis, we provide a very stimulating and highly enjoyable working environment in a competitive, internationally oriented research institution.



To apply for one of the positions, you should fulfill most of the following requirements:

- Master in computer science (or similar) = mandatory
- Scientific expertise in the field of visualization, volume visualization, computer graphics
- Practical experience with GPU programming, especially OpenGL and CUDA
- You intend to do demanding and internationally competitive PhD research
- Motivation to do a limited amount of administrative work at the Institute, including a little bit of teaching
- Very good English knowledge in speaking and writing; German is appreciated, but not required
- Humor and social integration

If you are interested in the positions, please **apply until 14th of March 2010** via email to Peter Rautek rautek@cg.tuwien.ac.at. After this date further applications will be considered until the positions are filled. Women are especially encouraged to apply.

In your application you should include:

- Curriculum vitae
- Publication list, including talks, master thesis, projects that are online available, etc.
- Which position you are applying for
- A short personal statement, why you in fact apply for this position
- Contact information (Email, URL, street address, phone, etc.)
- URLs to places you have previously worked
- Names of references

More information on the VRVis Research Center: www.vrvis.at

More information on the Institute of Computer Graphics and Algorithms: www.cg.tuwien.ac.at.

In case of further question do not hesitate to contact us,

Vienna, February 2010

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