Open Position at University of Geneva

CADMOS expert for scientific visualization

Publication date: 1st of April 2017

Level of education: Master's degree or PhD

Employment rate: 30% (to be discussed)

Duration: 2 years, with possible extensions

CADMOS (Center for Advanced Modeling Science) involves the Universities of Geneva (UNIGE) and Lausanne (UNIL) and the Ecole Polytechnique Fédérale de Lausanne (EPFL). CADMOS aims to develop a long-term expertise in computational science, HPC and modelling of large and complex systems in western Switzerland. The tasks of the CADMOS center include building synergy, encouraging innovative projects, and establishing an appropriate education program in computational science and engineering.

As part of its mission, CADMOS appoints an expert in scientific visualization who supports research teams on this matter. The aim is to assist labs in various fields in the creation of high end data visualizations that are at the same time aesthetically appealing and scientifically accurate. The purposes of scientific visualization include:

- Dissemination: Communication to society.
- Data exchange with peers.
- Improved scientific process: insight into large data sets through visual analysis.

The work will be, mostly, based on large datasets resulting from computer simulations that use HPC resources.

Job description

The successful applicant will collaborate with the CADMOS team to provide guidance to research labs in need for scientific visualization. The work includes:

- Meeting with research labs at UNIGE, UNIL, and EPFL. Assess their needs of scientific visualization and propose visualization methodologies.
- Provide guidance on the availability of visualization tools (Paraview, Blender, …) and corresponding training.
- For selected applications (to be defined by the CADMOS committee), and in collaboration with the CADMOS team, create some visual data (images/movies) for illustration purposes.

The visualization expert will be located at the University of Geneva, but will provide expert advice to UNIGE, UNIL, and EPFL.

Requirements

The following skills are required:

- Broad scientific background, and experience of collaborating in cross-disciplinary teams.
- Knowledge of scientific visualization tools, including Paraview.
- Knowledge of graphical rendering tools, including Blender.
- Basic knowledge in Computer Assisted Design and the manipulation of 3D geometry data.
- Basic knowledge in programming and scripting languages, including Python.
- A thorough command of English (spoken and written).

The following skills are highly appreciated:

- Strong background in scientific programming and HPC.
- Prior knowledge in 3D printing.
- French language skills.

Further information
For further information, please contact Dr. Jonas Lätt (Jonas.Latt@unige.ch).

Job application
To apply, please submit the following items (preferably in one file) in Word or PDF format electronically to Dr. Jonas Lätt, jonas.latt@unige.ch and Prof. Bastien Chopard, bastien.chopard@unige.ch, with the title "*Application: CADMOS expert for scientific visualization*":

- Cover letter (attention CADMOS Committee);
- CV;
- Contact details of 2 referees;
- Proof of your academic degree (Master's or PhD).