Temporary Full-time Position in Singapore

Visualizations in CFD

Future Cities Laboratory, Singapore-ETH Centre, ETH Zurich

21. April 2014

The Singapore-ETH Centre for Global Environmental Sustainability (SEC), a joint effort between ETH Zurich and the Singapore National Research Foundation (NRF), launched the Future Cities Laboratory (FCL) as its first research program in Singapore in September 2010. By now the FCL team counts over 180 team members from all over the world. They undertake cutting-edge research in disciplines ranging from material science, engineering and environmental technologies to communications technology and architecture. The FCL researches and develops solutions and guidelines directed towards the sustainable development of buildings, districts and regions.

The FCL Research Module IX “Simulation Platform” aims at advancing digital technologies in urban design, modeling and simulation. In this context the FCL offers a

Full-time Position (Ref: 11528)
Visualizations in CFD

Your Tasks: Visualization of CFD (Computational Fluid Dynamics) through first person real-time perspective. Unity Technologies (based in Singapore) have a well-established 3D game engine (Unity3D) and are looking for non-gaming applications. Since the primary simulation results of the Simulation Platform Module are CFD-based, we are interested in enhancing the visual results and the interactive exploration of the generated results, thus making the engineering content easily understandable to architects, designers and other stakeholders. Unity indicated an in kind contribution for the programming and code development work. Tasks:

• Investigate the possibility of exporting CFD results into Unity3D’s game engine

• Develop visual effects for presenting simulation results (e.g. wind speeds, temperatures)

• Provide a first game-like scene where engineering, design and visualization meet

Your Profile: You are interested in working in an exiting and large research project in Singapore and you have the ability to perform research and teamwork with a short period of vocational adjustment. You are a highly motivated candidate with initiative and you enjoy working in an interdisciplinary and multinational team. A Bachelor’s or Master’s degree in Computer Science or Computer Engineering, and experience in design or visualizations are conditions. Good English and strong collaborative skills are a plus.

You will work on the newly built CREATE Campus of the National Research Foundation of the Republic of Singapore. The position will be available from July/ August 2014. The appointment is limited to 6 month. For further information about the position, please contact Dr. Matthias Berger by E-mail mberger@arch.ethz.ch and visit our website (http://www.futurecities.ethz.ch/research-modules/simulation-platform/).

Applications as pdf file with cover letter, CV, and diplomas should be sent online (mberger@arch.ethz.ch) to the attention of: Dr. Matthias Berger, Singapore-ETH Centre, 1 CREATE Way, #06-01 CREATE Tower, Singapore 138602