

The CRENAU team of the AAU lab (<http://aau.archi.fr/>) of Ecole Centrale de Nantes works on urban environment perception.

We propose a PhD student position in urban data viz (see attachment for details), with IRCCYN lab (<http://www.irccyn.ec-nantes.fr/>).

We are looking for student interested in urba data perception, user experience and a multidisciplinary research environment.

Send your application to vincent.tourre@ec-nantes.fr

best regards,

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Team CRENAU / Lab AAU

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UDMV2016 Programme co-chair : <http://events.ulg.ac.be/udmv2016>

PhD proposal - VisUrba project

Visualization of multi layered spatio--temporal 3D urban datasets

Keywords: urban data, geovisualisation, user study

Background, Context:

The understanding of complex spatio--temporal urban data is a critical challenge in urban planning as the stakeholders have to take into account numerous constraints related to various domains embedding sustainable, social and economical concerns.

To tackle this problem, geovisualization uses methods based on human perception and cognition to show the underlying meaning of spatio--temporal datasets. This PhD thesis proposes to explore visualization methods in various 3D environments (Desktop, VR, AR, SAR) to find the best solution for a given user task (exploration, decision) at a given urban scale (building, street, district, etc.).

This PhD in information visualization takes place into an pluridisciplinary environment (computer science, geoinformation, humanities): the CRENAU team of the AAU lab (<http://crenau.archi.fr/>), which is a founding member of

theIRSTV research institute (www.irstv.fr), and the IVC team of the IRCCyN lab (<http://www.irccyn.ec-nantes.fr/fr/equipes/ivc>).

Research subject, work plan:

The work is about displaying spatio-temporal urban data in an effective way.

Based on the user's profile, behavior and task, the most appropriate visualization type and data quality will be estimated. More precisely, this PhD thesis proposes to consider each data as a layer that will be processed according to the data type and the required levels of detail as well as the display context. The data model will be based on standards currently used in GIS and/or BIM communities. User tests will be conducted to evaluate

the quality of proposed solutions. The research challenges include both visualization solution proposal and the construction of an evaluation framework for information visualization.

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Required skills:

MsC in computer science. Knowledge in visualization or HCI would be a plus.

To send:

Application letter, CV, Master results, coordinates of one or two referees

General mailing list

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