



CAMA: Context-aware movement analysis

PhD Studentship

The GIS Division at the Department of Geography, University of Zurich invites applications for a PhD studentship to work on a Swiss National Science Foundation grant developing new methods for the spatio-temporal analysis of movement data. The successful applicant will be based in Zurich and supervised by Dr. Patrick Laube.

The GIS Division is one of two GIScience divisions at the Department of Geography, University of Zurich. The two divisions form one of the largest GIScience concentrations in the world, with a range of research groups working on diverse topics including digital terrain modeling, uncertainty, geographic data mining and information retrieval, geovisual analytics, and spatial cognition research. For more information, see <http://www.geo.uzh.ch/gis>.

The main research focus will be the development of methods that relate movement trajectory data to the underlying geographical context in which that movement is embedded. This work will involve the conceptual and formal modeling of moving objects, their geographical context, and the object-context interrelation, as well as the design and evaluation of algorithms detecting such interrelations. The project is positioned in the area of GIScience, with links to data mining and knowledge discovery in databases, information retrieval, scientific visualization, and geometric algorithm design. A clear set of research goals are identified in the project proposal, but the successful candidate will be expected to develop and refine these throughout the project.

Applicants **must have** a

- a) Masters degree in GIScience, geomatics, or geography, or
- b) Masters degree in computer science, software engineering, or environmental science with a *demonstrable interest* in geographic information science/spatial sciences.

Applicants must be able to pursue data-oriented computational research. A good standard of written and spoken English is required.

Applicants **should have** an interest in the project's application domains of behavioral ecology and/or transportation and urban mobility. Knowledge in methodologies for spatio-temporal data management and analysis, as well as programming and scripting skills are an advantage. Knowledge of German, whilst not required, would be an advantage.

Interested candidates should send an application letter, a Curriculum Vitae, and contact details (including e-mail addresses) for three referees (preferably electronically as pdf) to:

Dr Patrick Laube
Department of Geography
University of Zurich - Irchel
Winterthurerstrasse 190
CH 8057 Zurich
Switzerland
patrick.laube@geo.uzh.ch

The position will start on 1st November 2010, or as soon as possible thereafter, and is for three years. Applications will close on 15th September 2010, but we will continue to accept high quality applications until the position is filled.