POSITION OPENING

**Position Title:** Postdoctoral Position in Complexity Science  
**Job Location:** Cambridge, MA

The Senseable City Lab (SCL) at the Massachusetts Institute of Technology (MIT) is looking for exceptional candidates to fill a postdoctoral position for the modeling and analysis of complex urban systems (http://senseable.mit.edu/ and specifically http://senseable.mit.edu/network/) through big data created by human activity.

Since its inception, SCL has acquired massive and unique data sets about different aspects of human behavior in cities all over the world. The Lab together with its’ partners – world leading industrial companies and organizations – has launched a major interdisciplinary initiative to harness these unprecedented data sets in order to better understand cities as 'complex systems', being able to model their dynamics and create innovative solutions for improving urban life.

The available data is very broad and includes individual-based phone call records, credit card spending transactions, social media, public transport e-ticket records and taxi movements among others.

**JOB DESCRIPTION:**

- Perform fundamental and applied research on quantifying, modeling and predicting human behavior within urban environment including mobility, social interactions, economical activity etc. in collaboration with the lab’s multidisciplinary team, external research and industrial partners.
- Analyze big datasets created by human activity.
- Actively contribute to the design and initiation of new research projects and ideas in the field of complex urban systems.
- Participate in the applied projects with lab’s industrial partners.
- Present research results at top international workshops and conferences, exhibits as well as internal project meetings.
- Co-author articles for publication in leading peer-reviewed journals and top conferences.

**REQUIREMENTS:**

The successful candidates must hold a Ph.D. in physics, mathematics, computer science, engineering, computational sociology (social network analysis), or a related field. Candidates with an interdisciplinary mathematical modeling background are also given particular attention. Ability of working in a multidisciplinary team environment, problem solving skills and high creativity are very welcome.

- Experience in handling large-scale data sets as well as complex systems modeling and analysis is required.
- Candidates must present a strong publication record.
- Practical skills in SQL, Matlab, Python are expected. C++, Java, Hadoop, MapReduce and other relevant technologies are a plus.
- Experience in human mobility and/or social network analysis is a strong plus.
- Experience in Machine learning, statistics is a plus.
- Advanced to strong verbal and written English skills are expected.
The position is available immediately. We invite interested applicants to submit the following material to senseable-applicants@mit.edu:

- A motivation letter (usually up to 1 page) stating the applicant's interest in working with SCL and in particular including: research areas and/or projects of particular interest within the given scope, key relevant competencies of the applicant, dates of availability.
- CV, which should include: relevant projects earlier accomplished and key relevant publications of the applicant (up to 5).
- Complete publication list, key relevant publications full text attached.
- An applicant should be ready to provide letters of recommendation or contacts of the academic referees upon request.

International scholars are welcome to apply.

For further information or an informal discussion about the post, please contact Dr. Paolo Santi at senseable-applicants@mit.edu.

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