THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學
FACULTY OF CONSTRUCTION AND ENVIRONMENT
DEPARTMENT OF LAND SURVEYING AND GEO-INFORMATICS
建設及環境學院
土地測量及地理資訊學系

POSITION OPENING

Position Title: Research Assistant in Human Mobility Mining and Big Urban Data Analytics
Location: Hong Kong
Principle Investigator: Yang Xu, Assistant Professor, LSGI

The Department of Land Surveying and Geo-Informatics (LSGI) at the Hong Kong Polytechnic University is seeking exceptional candidates to fill a research assistant position in human mobility mining and big urban data analytics.

Urban informatics for the exploration of smart city concepts has been identified as the strategic development area of LSGI. As part of this initiative, the department is building a research group to harness the power of big data for better understanding different aspects of urban and social dynamics. The focus is on a wide range of topics, including but not limited to spatiotemporal data analytics, human mobility mining and modeling, deep learning and artificial intelligence, streaming data analytics, geovisualization, and integrated spatial-social science.

JOB DESCRIPTION:

- Perform fundamental and applied research on quantifying and modeling human mobility based on big urban datasets (e.g., mobile phone data, smart card transactions, taxi GPS trajectories, social media data).

- Develop new machine learning algorithms to better predict individual and collective human movements at both intra- and inter-city scales.

- Perform data visualizations using state-of-art techniques to support relevant projects.

- Actively contribute to the design of new research topics (e.g., streaming data analytics, active mobility solutions, data fusion for smart city applications).

- Actively participate in research projects with the department's academic partners.

- Co-author articles for publication in leading peer-reviewed journals and top-tier conferences.

REQUIREMENTS:

The successful candidates must hold a bachelor degree in relevant fields (e.g., GIS, Computer Science, Urban Planning, Geography, etc.). Candidates with master or Ph.D. degree, and those with strong mathematical and programming skills are especially welcome.

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

FACULTY OF CONSTRUCTION AND ENVIRONMENT
DEPARTMENT OF LAND SURVEYING AND GEO-INFORMATICS
建設及環境學院
土地測量及地理資訊學系

- Experiences in academic research & Good written and communication skills (in English)
- Practical skills in Python, R, and mainstream GIS software (e.g., ArcGIS, QGIS) are expected. Candidates with experiences in spatial databases (e.g., PostGIS), Hadoop, and web-based visualization (e.g, D3.js, Leaflet) are a plus.
- Experiences in trajectory data mining and movement data analysis are a strong plus.
- Candidates with publication records will be given special attention.

HOW TO APPLY:

For interested applicants, please contact Dr. Yang Xu at yang.ls.xu@polyu.edu.hk. The applicants should also attach a CV, detailing the relevant research experiences, and publications if any.

Yang Xu, Assistant Professor
Department of Land Surveying and Geo-Informatics
6/F, Block Z
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong
香港九龍紅磡香港理工大學 Z 座 6 樓
Email: yang.ls.xu@polyu.edu.hk
Website: https://yangxu-git.github.io/