# JIANZHENG LIU

**https://jzliu-100.github.io/**

***BSc (ECNU); MSc (Peking); Ph.D. (HKU)***

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## EMPLOYMENT HISTORY/POSITION HELD

**Visiting Researcher**, March. 2017 – May. 2018, Department of Land Economy, The University of Cambridge.

**Visiting Post-doctoral Fellow**, Nov. 2016 – March. 2017, School of Urban Planning and Design, Peking University.

**Post-doctoral Fellow**, Oct. 2016 – June. 2018, Faculty of Architecture, The University of Hong Kong.

**Associate Director of Research in Urban Policy**, Aug. 2016 – Oct. 2016, Guoyun think tank, Shenzhen China.

**Assistant GIS Project Supervisor (part time)**, Mar. 2010 – Sept. 2010, for contract awarded to Centre of Urban Studies (Shenzhen), Peking University by the Urban Planning Land & Resources Commission of Shenzhen Municipality. Supervised approximately twenty people in cadastral data cleaning.

## WORKING PAPERS

**Jianzheng Liu**, Jie Li, Weifeng Li, Jiansheng Wu. 2017. A zoning framework for identifying regional boundaries of fine particulate matter in China.

**Jianzheng Liu**, Jie Li, Weifeng Li. 2017. Regional transport of fine particulate matter in the Beijing-Tianjin-Hebei area: Insights from ground-based air quality monitoring data.

## PUBLICATIONS

J. Wu, J. Zhu, W. Li, D. Xu, **J. Liu**. 2017. Estimation of the PM2.5 health effects in China during 2000–2011. Environmental Science and Pollution Research. doi: 10.1007/s11356-017-8673-6.

**Liu, J.**, J. Li, and W. Li. 2016. Temporal patterns in fine particulate matter time series in Beijing: A calendar view. *Scientific Report*. doi: 10.1038/srep32221.

**Liu, J.**, W. Li, and J. Li. 2016. Quality screening for air quality monitoring data in China. *Environmental Pollution*. doi: 10.1016/j.envpol.2016.06.037.

**Liu, J.**, J. Li, W. Li, and J. Wu. 2015. Rethinking big data: A review on the data quality and usage issues. *ISPRS Journal of Photogrammetry and Remote Sensing*. doi: 10.1016/j.isprsjprs.2015.11.006.

**Liu, J.**, J. Li, W. Li, and J. Shaw. 2015. Featured graphic: Mapping ethnic migration in mainland China from early 1960s to 2010. *Environment and Planning A*. 47 (12):1-3. doi: 10.1177/0308518X15616632. (Graphic article)

**Liu, J.**, and W. Li. 2014. A nighttime light imagery estimation of ethnic disparity in economic well-being in mainland China and Taiwan (2001–2013). *Eurasian Geography and Economics* 55 (6):691-714. doi: 10.1080/15387216.2015.1041147.

Li, J., X. Liu, **J. Liu (*)**, and W. Li (2016). City profile: Taipei. *Cities*, 55, 1-8. doi: 10.1016/j.cities.2016.03.007

Sarkar, C., C. Webster, M. Pryor, D. Tang, S. Melbourne, X. Zhang, and **J. Liu**. 2015. Exploring associations between urban green, street design and walking: Results from the Greater London boroughs. *Landscape and Urban Planning* 143: 112-125.

Zhou, X., **J. Liu**, A. G. O. Yeh, Y. Yue, and W. Li (2014). The Uncertain Geographic Context Problem in Identifying Activity Centers Using Mobile Phone Positioning Data and Point of Interest Data. In Y. Leung & F. Harvey (Eds.), *Advances in Spatial Data Handling and Analysis: Select Papers from the 16th IGU Spatial Data Handling Symposium*. New York, USA: Springer. doi: 10.1007/978-3-319-19950-4_7 (Book chapter)

Li, J., and **J. Liu (*)**, W. Li. 2015. The dilemma of urban natural conservation under contexts of land scarcity – the case of Hong Kong. *Urban Planning International* (Journal article in Chinese, accepted)

Wu, J., Q. Lin, W. Li, **J. Liu**, and J. Peng, 2013. The Dynamic Extraction of Classification Rules for Land Consolidation through Object-Oriented Features Space Optimization. *Remote Sensing Technology and Application*, 28(5): 799-806. (Journal article in Chinese)

Wu, J., N. Qiao, J. Peng, X. Huang, **J. Liu**, and Y. Pan, 2013. Spatial Variation of Landscape Eco-Risk in Open Mine Area. *Acta Ecologica Sinica*, 33(12), 3816-3824. (Journal article in Chinese)

Wu J., **J. Liu (*)**, X. Huang, J. Peng, and H. Li, 2012. Automatic identification of irrigation and drainage system in land consolidation area based on object-oriented classification. *Transaction of the CSAE*, 28(08), 25-31. (Journal article in Chinese)

**(*)** denotes corresponding author.

## RESARCH GRANT

¥50, 000     "[Urban Climate and its Impact on Mental and Social Well-being of Residents: Empirical Evidence from China]", *Urban China Initiative 2015 Grant Project* (Feb. 2015 – Dec. 2015)
Principal Investigator: **J. Liu**
Co-Investigator: J. Li

¥5, 600     "Study on extraction technology of land use information based on high resolution satellite imagery", *Presidential Research Fund of Peking University Shenzhen Graduate School*, 2011
Principal Investigator: **J. Liu**
Co-Investigator: L. Huang, K.Y. Pan

¥3, 000     "Development and Application of Farmland Information System on the Town of Pujiang in Shanghai Based on GIS", *Science Shop Undergraduate Program of East China Normal University*, 2009
Advisor: Prof. Wu Jianping
Principal Investigator: **J. Liu**
Co-Investigator: Y. Shen, P.X. Hu, H.S. Zhang

¥950, 000     "Remote Sensing Monitoring of PM2.5 concentrations and Analysis of the Built Environment Impacts in the Beijing-Tianjin-Hebei Area", *National Natural Science Foundation of China project*, Grant No.: 41471370, Jan. 2015 – Dec. 2018
Principal Investigator: W. Li
Co-Investigator: **J. Liu**, X. Huang, J. Song

¥180, 000     "The future perspective and status quo of large high-density residential area in urban china", *National Natural Science Foundation of China Project*, Grant No.: 41001090, Jan. 2011 – Dec. 2013
Principal Investigator: J. Jing
Co-Investigator: X. Huang, S. Huang, **J. Liu**

## PRESENTATIONS AND COLLOQUIUMS

2016. RGS-IBG Annual International Conference 2016, London, UK, 30 August - 2 September 2016. Presentation title: *Temporal Patterns in Fine Particulate Matter Time Series in Beijing: A Calendar Views*.

2016. International Conference on Geographies of Health and Living in Cities: Making Cities Healthy for All, organized by Department of Geography at The University of Hong Kong, Hong Kong, China, June 21-24, 2016. Presentation title: *Temporal Patterns in Fine Particulate Matter Time Series in Beijing: A Calendar Views*.

2015. Third International Conference on Social Policy and Governance Innovation: Smart and Inclusive Growth in Urbanization, organized by Department of Asian and Policy Studies in The Hong Kong Institute of Education and School of Public Administration in South China University of Technology, Guangzhou, China, Nov 28-29, 2015. Presentation title: *Rethinking big data: A review on the data quality and usage issues*.

2015. The 9th International Association for China Planning (IACP) Conference, Chongqing, 19 to 21 June 2015. Presentation title: *A Nighttime Light Imagery Estimation of Ethnic Disparity in Economic Well-being in Mainland China and Taiwan (2001-2013)*.

2015. The 8th Greater China Geographic Information Science Conference, Hong Kong, January 7-9. Presentation title: *Rethinking Big Data in Urban Studies*.

2014. Annual Meeting of the Association of American Geographers, Tampa, Florida, USA, April 8-12. Presentation title: *Delineating and Characterizing Life Space in a City Using POIs and Mobile Phone Data*.

2013. International Conference on China's Urban Transformation and Restructuring, Guangzhou, China, December 13-15. Presentation title: *Measuring ethnic disparity in economic well-being in China using DMSP/OLS night-time imagery.*

2011. Symposium of Monitoring the Quality & Ecology in Land Consolidation Project, Shenzhen, China, March 18. Presentation title: *Remote Sensing Image analysis specialized in land consolidation projects.*

## TEACHING EXPERIENCE

**Guest Lecturer**, "Lecture Series on Research Design", from November 15 to December 30, 2016, for postgraduate students studying in School of Urban Planning and Design, Peking University Shenzhen Graduate School.

**Guest Lecturer**, "Fine particulate matter pollution in China", October 24, 2016, Undergraduate URBS1001: Urban and Regional Development I, The University of Hong Kong

**Field Trip Manager**, March. 9-12, 2015, Joint Urban Planning Field Trip to Pearl River Delta joined by 47 HKU students and 10 PKU students, The University of Hong Kong

**Teaching Assistant**, Sept. 2014 – Dec. 2014, Undergraduate Department Course URBS 3002 - Urban and Regional Development II, Department of Urban Planning and Design, The University of Hong Kong

**Teaching Assistant**, Sept. 2013 – Dec. 2013, Undergraduate Common Core Course CCCH 9033 - Sustainable Urban Development and Hong Kong, The University of Hong Kong

**Certificate of Teaching and Learning in Higher Education**, graded **Proficient**, awarded on June 18, 2013 by The Centre for the Enhancement of Teaching and Learning, The University of Hong Kong

## SOFTWARE

**J. Liu** (Software designer and engineer), Y. Ye (Algorithm designer), "*Form Syntax*", an ArcMap Add-in tool to measure urbanity quantitatively developed in Department of Urban Planning and Design, The University of Hong Kong in 2012

**J. Liu** (Software designer and engineer), "*Information Extraction System Based On High-Resolution Remote Sensing Images For Land Consolidation*", a standalone Geographical Information System software for remote sensing image processing developed in Peking University Shenzhen Graduate School in 2011. This is part of research output of the National Science & Technology Pillar Program during the Eleventh Five-year Plan Period "Monitoring technology in land consolidation projects based on high resolution satellite imagery" (Grant No.: 2008BAB38B03-01, PI: Prof. Wu J. & Dr. Peng J.).

**J. Liu** (Software designer and engineer), "*System of Ecological Risk Assessment for ORDOS*", a standalone Geographical Information System software for ecological risk assessment, School of Urban and Environmental Sciences developed in Peking University in 2010. This is part of research output of the National Science & Technology Pillar Program during the Eleventh Five-year Plan Period "Risk control on ecological safety and food security: Key technologies and demonstrations" (Grant No.: 2006BAD20B07, PI: Prof. Wang Y. & Dr. Meng J.).

## SKILLS

**Programming:** Python, C#, Java, Visual Basic, IDL (Interactive Data Language), R.

**Software Skills:** ArcGIS and ENVI/IDL for spatial analysis and mapping, Matlab, SPSS and TATA for quantitative analysis, MySQL and SQL Server for database management.

**Languages:** English (Proficient), Chinese Mandarin (Native).

## HONORS AND AWARDS

Best Presentation Award, awarded for the Best Presentation in 15th Academic Conference for Postgraduate Students in Construction Management & Real Estate, by The HKPolyU CIB Student Chapter in Department of Building & Real Estate of The Hong Kong Polytechnic University on 22 June 2016

Karen R. Polenske Best Paper Award, awarded by International Association for China Planning in its annual conference in Chongqing, June 2015

Qian Xue-sen Paper Award of Excellence, awarded by Hangzhou International Urbanology Research Council, Nov. 2015.

University Postgraduate Fellowship, awarded by The University of Hong Kong, Dec. 12, 2012 (36/approx.750)

Top Class Scholarship for Outstanding Academic Performance, awarded by Peking University, June 2009 (4/35)

Top Class Scholarship for outstanding academic performance, awarded by East China Normal University, Sep. 2006 (1/44)

## SERVICES

**Elected Student Board Member** of International Association of Chinese Planning (IACP), October, 2015 – October, 2017

Member of Pro-Vice Chancellor (Research) Search Committee appointed by the Council of The University of Hong Kong, July 1, 2014 – March, 2015

**Elected Member of the Senate**, and **Ex officio Member** in the Court of The University of Hong Kong, November 30, 2013 – November 29, 2014

Deputy Coordinator of Committee of New Urban Researchers' Seminar Series (NURSS) under the Centre of Urban Studies and Urban Planning (CUSUP) of The University of Hong Kong, August, 2015 – August, 2016.

## REFEREES

Available on request.