Bo Zhao
Curriculum Vitae

February, 2018

Title:	Assistant Professor
Address:	College of Earth, Ocean, and Atmospheric Sciences, Corvallis, OR, 97331
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Research Group:	http://geoviz.ceoas.oregonstate.edu

Degrees

2012 ~ 2015   Ph.D. in Geography. The Ohio State University

2006 ~ 2008   M.S. in Cartography and GIScience. Nanjing University, China

2002 ~ 2006   B.S. in GIScience. Nanjing University, China

Academic Positions

2016 ~ Present   Assistant Professor, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University

2015 ~ 2016   Rajawali Postdoc Fellow, J.F. Kennedy School of Government, Harvard University

Fields of Specialization

- Cartography, Web Mapping and Geovisual Analytics

- Location Based Social Media, Location Spoofing

- Geo-Narrative (*a.k.a* Map based storytelling)

Publications

2018

B. Zhao, X. Huang, and D.Z. Sui. Place spoofing: A case study of the xenophilic copycat community in Beijing, China. Professional Geographer (under review)

B. Zhao and S. Zhang. Rethinking spatial data quality: Pokemon Go as a case study of location spoofing. Professional Geographer (second revision)

2017

D.Z Sui, B. Zhao, and H. Kong. The Development of Copycat Towns in China: An Initial Analysis of Their Economic, Social, and Environmental Implications. Lincoln Institute of Land Policy. https://www.lincolninst.edu/sites/default/files/pubfiles/sui_wp17ds1.pdf

Y. Fan, S. Chen, B. Zhao, S. Pan, C. Jiang and H Ji. Shoreline dynamics of the active Yellow River delta since the implementation of Water-sediment regulation scheme: A remote-sensing and statistics-based approach. Estuarine, Coastal and Shelf Science (2018): 10.1016/j.ecss.2017.11.035

B. Zhao and Q. Chen. Location Spoofing in a Location-Based Game: A Case Study of Pokémon Go. Lecture Notes Geoinformation, Cartography, Michael P. Peterson (Ed.): Advances in Cartography and GIScience. doi: 10.1007/978-3-319-57336-6_2

B. Zhao and D. Z. Sui. True lies in geospatial big data: detecting location spoofing in social media. Annals of GIS: 1-14. doi: 10.1080/19475683.2017.1280536

2016

B. Zhao, D.Z. Sui and Z. Li. Visualizing the gay community in Beijing with location-based social media. Environment and Planning A. doi:10.1177/0308518X16685885.

B. Zhao. Study on the Effects of Human Intention on Spatial Data Quality. International Conference on GIScience Short Paper Proceedings, 1(1). doi: 10.21433/B31180p357ks. Retrieved from: http://escholarship.org/uc/item/80p357ks

J.C. Liu and B. Zhao. Who speaks for climate change in China? Evidence from Weibo. Climatic Change. doi:10.1007/s10584-016-1883-y

Y. Li, J Qiu and B. Zhao. Quantifying urban ecological governance: A suite of indices characterizes the ecological planning implications of rapid coastal urbanization. Ecological Indicators. 72 (2017): 225-233

2015

D.Z. Sui and B. Zhao. GIS as Media through the GeoWeb. In Mediated Geographies and Geographies of Media, eds. S.P. Mains, J. Cupples, and C. Lukinbeal. Springer. Berlin.191-208.

X. Chen, B. Zhao, and E. Blackard. Unveiling Perceptions of Food Safety Scandals in China: An Exploratory Study with Search Engine. Global Media Journal.

S.J. Kay, B. Zhao, and D.Z. Sui. Can Social Media Clear the Air? A Case Study of the Air Pollution Problem. Professional Geographer, 67:3:351-363.

2014

B. Zhao and D.Z. Sui. True Lies in Big Data: Detecting Location Spoofing based on Geographic Knowledge. In Workshops on Big Data and Urban Informatics, ed. P. Thakuriah. Chicago, IL.

2013

D.Z. Sui, Z.W. Xu and B. Zhao. Networks in Geography. In R. Alhajj and J. Rokne, Encyclopedia of Social Network Analysis and Mining (ESNAM) Berlin, Springer.

L.J. Zhang, B. Zhao and D.H. Jiang. Research on the Conversion from CAD to GIS Data. Geomatics Technology and Equipment, 14-17. (In Chinese)

2009

Z.Y. Chen, M.C. Li and B. Zhao. Geo-Interface - Connecting the Real World with Cyberspace. Science of surveying and mapping, 34. (In Chinese)

2007

B. Zhao, M.C. Li and Z.X. Jiang. Using GeoRSS to Syndicate the Spatiotemporal Information. Geospatial Information Technology and Applications, Proc. SPIE 6754, 675428.

2006

B. Zhao, X.M. Huang and G.P. Wu. OGC Web Services Based on Ajax Engine. Geospatial Information Technology, Proc. SPIE 6421, 64210R.

X.M. Huang and B. Zhao. SVG based Remote Sensing Visualization. Remotely Sensed Data and Information, Proc. SPIE 6419, 64191N.

B. Zhao. An Introduction to UMN MapServer. Software World, 20:48~49. (In Chinese)

2005

B. Zhao and J.Z. TAN. A Research on Linear Elements Smoothing in the MapInfo. Bulletin of Surveying and Mapping, 6:25~27. (In Chinese)

B. Zhao and J.S. MA. Design of XML based Geo Data Model. Geomatics Technology and Equipment, 1:9~12. (In Chinese)

Services

Service to University

- GIS DAY, 2016, 2017
- Geography Graduate Student Admission, 2017-18, 2018-19

Service to Profession

- Panelist, Story Map Journal, Association of American Geographers Annual Conference. New Orleans. LA. Apr. 21 to 25. 2018
- Co-Chair, Special Session on Geovisual Analytics, Association of American Geographers Annual Conference. New Orleans. LA. Apr. 21 to 25. 2018
- Co-Chair, Special Session on Data-Driven Geography, Association of American Geographers Annual Conference. Chicago. IL. Apr. 21 to 25, 2015

- Non-resident Research Fellow, Study on Big Data and Governance, Ash Center for Democratic Governance and Innovation, Kennedy School of Government, Harvard University, 2016 – 2017

- Reviewer for PLOS ONE, Transactions in GIS, GeoJournal, International Journal of Geographical Information Science, Environment and Planning B, Big data, GIScience related books and chapters.

Service to Local Community

- Geovisual Analytical Tools for Exploring Benton County Thriving Communities 2040, https://scottwhitson.github.io/benton/

Grants

- Zhao B. (2018) Turfgrass Water Conservation Association, Geovisual Analytic Platform for TWCA (2018-2020).

- Zhao B. (2017) National Science Foundation (NSF) funded Research Experience for Undergraduates (REU) at Andrew Long Term Ecological Research (LTER) Grant: Building Wireless Network of Bots for Monitoring Ecosystem of Forest.

- Zhao B. (2016) Learning Innovation Grant: Human-Geospatial Data Interaction: Leveraging Virtual Reality to Extend Teaching and Learning in Geovisualization.

- Zhao B. (2016-2017) Google Education Grant: Google Cloud Platform for Web Mapping and Geovisualization.

Awards

- Sea Level Rise Migration Project, https://johnsorib.github.io/slr/, Grand Prize of Ecological Visualization Contest, 2017, Funded by the National Science Foundation (NSF-DBI-1062566), Faculty Advisor.

- Water Infrastructure of Oregon, http://oregonwater.info/, Third Prize of Student Environment Challenge, 2017, Funded by Oregon Chapter | PNWIS (Oregon Chapter of Air & Waste Management Association), Faculty Advisor.

Courses

Oregon State University, 2016 ~ present
- GEOG 370: Cartography (2018 Winter)
- GEOG 371: Web Mapping (2017 Fall, Winter)

- GEOG 571: Web Mapping (2017 Winter)
- GEOG 4/572: Geovisual Analytics (2017 Spring)

The Ohio State University, 2015

- GEOG 5220: Fundamentals of GIS (2015 Summer)

Committee and Advising

- Doctoral student advisor for Chunxue Xu @ Oregon State University

- Master student advisor for Jared William Rickey @ Oregon State University

- Master Advisor committee member for Likun Chen @ Oregon State University

- Master thesis committee member for Hongyan Yi @ Oregon State University

- Master thesis committee member for Yingqi Tang @ Oregon State University

- Master thesis committee member for Dilruba Showkat @ Oregon State University

Invited Talks/Presentations

2018   Rethink Geospatial Science via a Whole New Mind. Invited by SDMG at Oregon State University. Corvallis, OR. January 19, 2018.

2017   Geospatial Data Management using the Open Source Infrastructure. Invited by Robert Kennedy for GEOG 361, Corvallis, OR. Nov 16, 2017.

2016   Detecting Location Spoofing in Social Media: A Bayesian Time Geography Approach. Invited by NSF-IBSS workshop, San Diego, CA. August 3, 2016.

2015   Trojan Horse, Geo-piracy, and Cyber-espionage: Detect Location Spoofing in Geo-Spatial Big Data. Invited by Center for Geographic Analysis, Harvard University. Cambridge. Dec. 3.

Location Spoofing: An Emerging Issue in Geospatial Big Data. Invited by School of Geographic and Oceanographic Science, Nanjing University. Nanjing. China. Aug. 22.

Location Spoofing in Social Media: Concept, Motivation and Social Impacts. *MapTalk Series*. Invited by Institute of Geographic Sciences and Natural Resource Research, Chinses Academy of Sciences. Beijing. China. Aug. 19.

2014   True Lies in Big Data: Detecting Location Spoofing based on Geographic Knowledge. *Workshops on Big Data and Urban Informatics*. Chicago, IL. Aug. 11 − 12.

Using Weibo to Understand the Spatial-temporal Dynamics of Public Reactions to the Case of Bo Xilai (NSF supported). *IWGIS2014*. Beijing, China. Jun. 21-22.

2013   Open Source GIS. *CURA Public Seminar*. Columbus, OH. Oct. 24.

Designing a Real-time Monitor for Social Media Data – A Case Study of Bo Xilai's Scandal (NSF supported). *CGA Annual Conference*. Harvard University. Boston, MA. May 2-3.

Spatial Community Over Social Media. *AAG Annual Conference*. Los Angeles, CA. Apr. 9-13.

Geocoding in Public Health Research. *IPR Workshop: Getting Started with Geo-Health Research*. Invited by Institute for Population Research, Columbus, OH. Mar. 28. Invited.

2010   GIS Applications in Archeological Studies. Invited by Department of Archeology, Northwest University, Xi'an, China. Mar. 30.

2009   Using GeoDjango to Enrich the User Participation Functions of Web GIS. Invited by *GIS ABC Series Seminar*. Design School, Harvard University, Boston, MA. Jul. 15.

Previous Projects

2017   Ocean Acidification in the Pacific Northwest. https://briangkatz.github.io/rva-oa/. A NOAA supported Project, Team member.

Water Atlas - The Oregon Water Atlas is an aggregation and visualization of Oregon's water data. http://oregonwater.info/. USGS and Institute for Water & Watersheds at OSU, Faculty Advisor.

2016   Storymap.js - A JavaScript library to tell a story using web maps. https://github.com/jakobzhao/storymap/. Founder.

2015   A Web Cluster for Harvesting Geospatial Big Data Using Open Hardware. *http://goo.gl/3ty4NW.* Independent research.

2012   iOS based Industrial Project Management System for Nanning City. Project leader.

Android based Mobile Land Use System for Hangzhou City. Project leader.

Xi'an Historical Geographic Information System. The Demo at *http://goo.gl/Qpq11K* and Reported by major local newspaper at *http://goo.gl/SMVIbq*. Project leader and programmer.

2011   Web Map for Helping Chinese Street Beggar Children to Return to Their Hometown. *http://goo.gl/wqRqK7*. Independent research.

GeoCloud – a Web based Mapping Server. *http://goo.gl/1ErVbC*. Software designer and project leader.

NaviLite - File based Spatial Database for Mobile Environment. *http://goo.gl/RvWtWu*. Project leader.

Digital City Administration System for Yuhang District of Hangzhou City. *http://dt.yuhang.gov.cn/yhmap/*. Project leader.

The GIS for Ancient Nomadic People in Inner Asia. Project leader.

2010   Boston Map. *http://goo.gl/bXUTCJ*. CGA, Boston Area Research Initiative, Harvard. Programmer.

Africa Map. *http://goo.gl/0KOylH*. CGA, Harvard. Programmer.

2009   Swine Flu (H1N1) Influenza Map. *http://goo.gl/FM0N94*. Reported by Microsoft Virtual Earth (*http://goo.gl/34TZIO*). Independent work.

HeatMap Plugin for uMapper and ArcGIS Flex API. *http://goo.gl/UfVwcI*. Independent research.

Global Political Infrastructure Map. *http://goo.gl/qVu6dv*. Co-authored with Prof. Howard Philips from University of Washington, Seattle.

A web based Transit Trip Planner for the City of Milwaukee. Programmer.

2008   Real Estate Evaluating System for Nanjing City. Software design and programmer.