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Educational background

➤ Michigan State University	2015	Geography	PhD
➤ Fudan University	2010	Ecology	M. Sc
➤ Sun Yet-Sen University	2007	GIS	B. Sc

Work experience

- Research assistant, Michigan State University (2014/8- 2015/8)
- Teaching assistant, The University of Toledo (2011/9 -2014/8)
- Research assistant, Fudan University (2007/9 - 2011/8)
- Research assistant, Sun Yet-Sen University (2006/3 - 2006/12)
- Summer intern in Bureau of Land Planning of Zengcheng city, Guangdong, China (2006/7 - 2006/9)
- GIS mapper in Bureau of Land Planning of Nanhai city, Guangdong, China (2006/10 - 2006/11)

Publications

- 1) Meimei He, Bin Zhao*, **Zutao Ouyang**, Yaner Yan, Bo Li; 2010. Linear spectral mixture analysis of Landsat TM data for monitoring invasive estuarine vegetation. *International Journal of Remote Sensing* 31, 4319-4333.
- 2) Yaner Yan, **Zutao Ouyang**, Haiqiang Guo, Shusong Jin, Bin Zhao*; 2010. Detecting the spatiotemporal changes of tidal flood in the estuarine wetland by using MODIS time series data. *Journal of Hydrology* 384(1), 156-163
- 3) Shenglan Zeng, Tingting Zhang, **Zutao Ouyang**, Yu Gao, Jiakuan Chen, Bo Li, Bin Zhao*, 2010, Effects of Road Disturbance on Plant Biodiversity, *World Academy of Science, Engineering and Technology*, 42, 353-364
- 4) **Zutao Ouyang**, MoQian Zhang, Xiao Xie, Qi Shen, HaiQiang Guo, Bin Zhao *; 2011. A comparison of pixel-based and object-oriented approaches to VHR imagery for mapping saltmarsh plants. *Ecological Informatics* 6, 136-146
- 5) Senglan Zeng, Tingting Zhang, Yu Gao, **Zutao Ouyang**, Jiakuan Chen, Bo Li B, Bin Zhao. 2011. Effects of road age and distance on plant biodiversity: a case study in the Yellow River Delta of China. *Plant Ecology*. 7, 1213-1229
- 6) Tingting Zhang, Senglan Zeng, Yu Gao, **Zutao Ouyang**, Bo Li, Changming Fang, Bin Zhao*. 2011. Assessing impact of land uses on land salinization in the Yellow River Delta, China using an integrated and spatial statistical model. *Land Use Policy* 28 (4), 857-866
- 7) Tingting Zhang, Senglan Zeng, Yu Gao, **Zutao Ouyang**, Bo Li, Changming Fang, Bin Zhao. 2011. Using hyper spectral vegetation indices as a proxy to monitor soil salinity. *Ecological Indicators*, 6, 1552-1562
- 8) **Zutao Ouyang**, Richard Becker, Wade Shaver, Jiquan Chen. 2013. Evaluating the sensitivity of

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- wetlands to climate change by remote sensing techniques. *Hydrological processes*. 28 (4), 1703-1712
- 9) **Zutao Ouyang**, Yu Gao, Xiao Xie, Haiqiang, Guo, Ting-Ting Zhang, Bin Zhao. 2013. Spectral Discrimination of the Invasive Plant *Spartina alterniflora* at Multiple Phenological Stages in a Saltmarsh Wetland. *PloS one* 8 (6), e67315
 - 10) Ranjeet John, Jiquan Chen, **Zutao Ouyang**, Jingfeng Xiao, Richard Becker, Arindam Samanta, Sangram Ganguly, Wenping Yuan, and Ochirbat Batkhishig, 2013. Vegetation response to extreme climate events on the Mongolian Plateau from 2000 to 2010, *Environmental Research Letters* 8 (3), 035033
 - 11) Jing Xie, Ge Sun, HouSen Chu, Junguo Liu, Steven G McNulty, Asko Noormets, Ranjeet John, **Zutao Ouyang**, Tianshan Zha, Haitao Li, Wenbin Guan, Jiquan Chen, 2013. Long-term variability in the water budget and its controls in an oak-dominated temperate forest, *Hydrological Processes*, DOI: 10.1002/hyp.10079
 - 12) Jing Xie, Jiquan Chen, Ge Sun, Housen Chu, Asko Noormets, **Zutao Ouyang**, Ranjeet John, Shiqiang Wan, Wenbin Guan, 2013. Long-term variability and environmental control of the carbon cycle in an oak-dominated temperate forest, *Forest Ecology and Management*, DOI: 10.1016/j.foreco.2013.10.032
 - 13) Moqian Zhang, Haiqiang Guo, Xiao Xie, Tingting Zhang, **Zutao Ouyang**, Bin Zhao, 2013. Identification of Land-Cover Characteristics Using MODIS Time Series Data: An Application in the Yangtze River Estuary. *PloS one* 8 (7), e70079
 - 14) **Zutao Ouyang**, Jiquan Chen, Richard Becker, Housen Chu, JingXie, Changliang Shao, Ranjeet John. 2014, Disentangling the confounding effects of PAR and air temperature on net ecosystem exchange in time and frequencies, *Ecological complexity*, 19,46-58
 - 15) Housen Chu, Jiquan Chen, Johan F Gottgens, **Zutao Ouyang**, Ranjeet John, Kevin Czajkowski, Richard Becker. 2014, Net ecosystem methane and carbon dioxide exchanges in a Lake Erie coastal marsh and a nearby cropland, *Journal of Geophysical Research: Biogeosciences*, 5, 722-740
 - 16) Housen Chu, Johan Gottgens, Jiquan Chen, Ge Sun, Anku Desai, **Zutao Ouyang**, Changliang Shao, Kevin Czajkowski. 2014, Climatic variability, hydrologic anomaly, and methane emission can turn productive freshwater marshes into net carbon sources, *Global Change Biology*, 21(3):1165-81
 - 17) Jiquan Chen, Ranjeet, John, Yaoqi Zhang, Daniel G. Brown, Ochirbat, Batkhishig, Amartuvshin, Amarjargal, **Zutao Ouyang**, Gang Dong, Jiaguo Qi. 2014. Divergences of Two Coupled Human and Natural Systems on the Mongolia Plateau. *Bioscience* (Accepted).
 - 18) Ting-Ting Zhang, Jia-Guo Qi, Yu Gao, **Zu-Tao Ouyang**, Sheng-Lan Zeng, Bin Zhao. 2015. Detecting soil salinity with MODIS time series VI data. *Ecological Indicator*, 52, 480-489
 - 19) Shao, C, J. Chen, C. A. Stepien, H. Chu, **Z. Ouyang**, T. B. Bridgeman, K. P. Czajkowski, R. Becker, R. John. Diurnal to annual changes in latent, sensible heat and CO₂ fluxes over a Laurentian Great Lake: A case study in western Lake Erie, *Journal of Geographic Research – Biogeosciences* (accepted).

Book Chapters

- 1) Chen, J. R. John, G. Qiao, O. Batkhishig, W. Yuan, Y. Zhang, C. Shao, **Z. Ouyang**, L.Li, K. Guo, and G. Sun. 2013. State and Change of Dryland East Asia (DEA). In Chen et al., Pages 3-22. *Dryland East Asia (Dea): Land Dynamics Amid Social and Climate Change*. HEP and De Gruyter. 470 pp

Presentations (Scientific meetings)

Michigan State University

- 1) Meimei He, Bin Zhao*, **Zutao Ouyang**, Yaner Yan, Bo Li. Application of linear spectral mixture analysis of Landsat TM imageries in monitoring estuarine invasive plant, International conference on landscape ecology and forest manage: challenges and solutions, 2008/9/16 – 2009/8/19, Chengdu, Sichuan, China
- 2) **Zutao Ouyang**, Richard Becker, Wade Shaver, Jiquan Chen. Evaluating the sensitivity of wetlands to climate change by remote sensing techniques. The 3rd Annual Midwest Graduate Research Symposium, 2012/3/24, Toledo, OH, USA.
- 3) **Zutao Ouyang**, Richard Becker, Wade Shaver, Jiquan Chen. Evaluating the sensitivity of wetlands to climate change by remote sensing techniques. EcoSummit, 2012/9/30 – 2012/10/5, Columbus, OH, USA.
- 4) **Zutao Ouyang**, Jiquan Chen, Richard Becker, Housen Chu, JingXie, Changliang Shao. Disentangling the confounding effects of PAR and air temperature on net ecosystem exchange in time and scale. AGU Fall 2013 Meeting, 2013/12/9 – 2013/12/14, San Francisco, CA, USA
- 5) Ranjeet John, Jiquan Chen, **Zutao Ouyang**, Richard Becker, Jingfeng Xiao, Arindam Samanta, Sangram Ganguly, Geli Zhang, Ochirbat Batkishig. Long term trends in GPP and ET on the Mongolian Plateau in context of climate and land cover/land use change, AGU Fall 2013 Meeting, 2013/12/9 – 2013/12/14, San Francisco, CA, USA
- 6) Ranjeet John, Jiquan Chen, **Zutao Ouyang**, Ochirbat Batkishig, Arindam Samanta, Sangram Ganguly, Wenping Yuan, Jingfeng Xiao. Vegetation response to extreme climate events on the Mongolian plateau from 2000-2010. AGU Fall 2012 Meeting, 2012/12/3 – 2012/12/7, San Francisco, CA, USA
- 7) Housen Chu, Jiquan Chen, **Zutao Ouyang**, Deal, Mike, Ranjeet John, Johan Gottgens. CO₂ and H₂O fluxes in different ecosystems altered uniquely by similar climatic extremes. AGU Fall 2012 Meeting, 2012/12/3 – 2012/12/7, San Francisco, CA, USA
- 8) Jiquan Chen, **Zutao Ouyang**, Ranjeet John, Housen Chu, Terenzio Zenone, Mike Deal, Johan Gottgens. Climatic Extremes Significantly Alter Carbon Fluxes in Time and Space. B34A-03. AGU Fall 2012 Meeting, 2012/12/3 – 2012/12/7, San Francisco, CA, USA
- 9) Changliang Shao, Jiquan Chen, Carol Stepien, Thomas, Bridgeman, Kevein Czajkowski, Richard Becker, Housen Chu, **Zutao Ouyang**. Eddy covariance measurement of carbon, latent and sensible heat fluxes from western Lake Erie, AGU Fall 2013 Meeting, 2013/12/9 – 2013/12/14, San Francisco, CA, USA
- 10) **Zutao Ouyang**, Changliang Shao, Housen Chu, Richard Becker, Jiquan Chen, Carol A. Stepien, and Thomas Bridgeman. Relating Chlorophyll-a to CO₂ flux in the western Lake Erie at multiple time scales. AAG Annual Meeting, 2015/4/21 – 2014/4/25, Chicago, IL, USA

Journal Reviewer

- Remote Sensing of Environment:10/22/2012
- Egyptian Journal of Remote Sensing:11/14/2013
- Agricultural and Forest Meteorology:6/19/2014
- Wetlands:9/11/2014
- Ecological Complexity: 9/20/2014

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- Geoscience and Remote Sensing Letter: 3/19/2015

Expertise

- Programming (C, IDL, Python, R, MATLAB)
- GIS and Remote Sensing (ArcGIS, ERDAS, ENVI, eCognition)
- Eddy Covariance (Tower maintenance, data collection, CR5000 programming)

Awards & Recognitions

- Scholarship for Outstanding Students of Sun Yet-Sen university in 2004
- Three consecutive years of Xianzi Zeng Scholarship from year 2005 to 2007
- Second place of software engineering programming, Department of Remote Sensing and GIS Engineering ,Sun Yet-Sen University, 2006
- First-grade scholarship of Fudan University in 2008
- Excellent MA theses of Shanghai, 2013
- Excellent MA theses of Fudan University, 2013
- GLEON Fellowship, 2014-2016