

Weishu Gong

Department of Geographical Sciences
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Education

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| PhD Student | Now |
| Geographical Sciences | |
| University of Maryland | College Park, MD |
| Department of Geographical Sciences | |
| Master of Science | May. 2013 |
| Geodetic Science | |
| The Ohio State University | Columbus, OH |
| School of Earth Sciences | |
| Bachelor of Science | Dec. 2010 |
| GIS and Computer Cartography | |
| University of Maryland at College Park | College Park, MD |
| Department of Geography | |
| Undergraduate Student | Sep. 2006 – Jun. 2007 |
| Remote Sensing Science & Technology | |
| Wuhan University | Wuhan, Hubei, China |
| School of Remote Sensing and Information Engineering | |
| • Transferred to University of Maryland in Sep. 2007 | |

Professional Experience

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| Graduate Teaching Assistant | Now |
| Department of Geographical Sciences | |
| • Supervise lab sessions for the introductory GIS class | |
| Research Associate | Jul. 2013 – Jul. 2015 |
| Center for Spatial Information Science and Systems, George Mason University | |
| • Participated in the Atmospheric Composition Portal Project, a collaborated project between NASA of the US and DLR of Germany | |
| • Assisted research in building contextual metadata for atmospheric remote sensing datasets, including automated information gathering and natural language processing / text mining | |
| Graduate Research Associate | Sep. 2011 – Jun. 2012 |
| Mapping and GIS Lab, Department of Civil, Environmental and Geodetic Engineering, OSU | |
| • Participated in the Mars Exploration Rovers (MER) project funded by NASA | |
| • Generated traverse maps of Opportunity rover for drive planning on daily basis | |
| • Produced topographic products from rover images | |

Intern

Jan. 2011 – Jul 2011

ERDAS, Inc. (now part of Intergraph)

- Worked as a software quality assurance intern
- Tested various ERDAS software products and found bugs
- Helped research on software maintenance and development

Research Experience

Master's Scientific Paper

Sep. 2012 – Apr. 2013

"Potential of MSL Rover Localization Compared with MER."

- Reviewed the navigation and localization techniques used in the MER mission
- Studied the navigation techniques used in the Mars Science Laboratory (MSL) mission
- Proposed several possible methods for MSL rover localization

Undergraduate Independent Study

Sep. 2010 – Dec. 2010

- Studied the application of Web GIS, especially the application of Google Map API
- Created a webpage with a Google Map application

Undergraduate Independent Research

Sep. 2009 – Dec. 2010

- Conducted independent research about the radiation budget on Tibetan Plateau
- Analyzed data from many different sources in various formats
- Researched the significance of radiation budget change on the Tibetan Plateau

Presentation & Publication

Gong, W. 2015. "Discussions on Localization Capabilities of MSL and MER Rovers." *Annals of GIS* 21 (1): 69-79. doi: 10.1080/19475683.2014.992367.

Xiao, X., B. Guo, Y. Shi, W. Gong, J. Li, and C. Zhang. 2013. "Robust and rapid matching of oblique UAV images of urban area." *Proc. SPIE 8919, MIPPR 2013: Pattern Recognition and Computer Vision* 89190Y. doi:10.1117/12.2030497.

Gong, W. 2011. "An Assessment of the Surface Radiation Budget over the Tibetan Plateau using Observed Data and Global Circulation Model Simulations," *Annual Meeting of the Association of American Geographers*, Seattle, WA, Apr. 2011

Skills

Languages

- English (fluent)
- Chinese (native)

Programming

- Python
- Java
- Visual Basic for Applications
- Matlab
- C
- JavaScript

Remote Sensing and GIS

- ArcGIS
- ERDAS Imagine and LPS
- ENVI
- PCI
- Intergraph GeoMedia
- OpenGeoDa

Statistics

- R