Panshi Wang | Curriculum Vitae
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Highlights

o Advanced skills in programming, machine learning, and geosptial tools for large-scale applications.

o Strong knowledge of remote sensing datasets and algorithms.

o Practical experience working with multi-discplinary teams and handling diverse tasks.

Education

University of Maryland	**College Park, MD**
Ph.D. Geographical Sciences, Advisor: Dr. Chengquan Huang	*2011–2017*
Dissertation: Towards Fine Scale Characterization of Global Urban Extent, Change and Structure	
Institute of Electronics, Chinese Academy of Sciences	**Beijing, China**
M.E. Signal and Information Processing	*2008–2011*
University of Science and Technology of China	**Hefei, China**
B.E. Electronic Engineering, Special Class for the Gifted Young	*2003–2008*

Experience

Research..

University of Maryland	**College Park**
Graduate Research Assistant	*2012–2017*

Supported various remote sensing projects, including:

o Global Land Survey Impervious Mapping Project (https://urban.gsfc.nasa.gov):
  - Designed a global urban extent mapping algorithm using Landsat data;
  - Produced a 30m global Human Built-up and Settlement Extent (HBASE) product;
  - Developed computer programs for global-scale Landsat imagery processing;
  - Led validation efforts for global HBASE product and impervious surface change.

o VIIRS Surface Type Project (http://vct.geog.umd.edu/st):
  - Developed and implemented an algorithm for automatic training data generation from high resolution imagery to map continuous fields land cover;
  - Supported VIIRS surface type product development and validation;
  - Prototyped VIIRS daily burnt area mapping;
  - Prototyped VIIRS daily inundation validation method using Sentinel-1 SAR data.

Institute of Electronics	**Beijing**
Graduate Research Assistant	*2009–2011*

Developed and implemented a relative calibration platform and data processing systems.

Teaching..

University of Maryland	**College Park**
Teaching Assistant	*2011–2012*

Lab instructor for two remote sensing courses.

Skills

Programming Languages: C/C++ (10+ yr), Python (8+ yr), IDL (8+ yr), Java (basic)
Datasets: Landsat (8+ yr), MODIS (8+ yr), VIIRS (5+ yr), Sentinel-1/2 (1+ yr)
Geospatial Tools: ENVI (8+ yr), ArcGIS (6+ yr), QGIS (5+ yr), GDAL (5+ yr)
Others: Linux (8+ yr), GIT (2+ yr)

Awards

Jacob K. Goldhaber Travel Grant: University of Maryland *2015. 12*
Jingli Yang Summer Research Fellowship: University of Maryland *2016. 04*
Open Access Publishing Fund: University of Maryland *2017. 09*
Jacob K. Goldhaber Travel: University of Maryland *2017. 10*

Services

o Reviewer for scientific journals including IEEE Transactions on Geoscience and Remote Sensing, International Journal of Remote Sensing, Urban Science, and Remote Sensing Applications: Society and Environment
o Co-chair for 2017 IGARSS session TU1.L12: Radar and Thermal Data for Urban Monitoring
o Undergraduate student mentor for college of Behavioral and Social Sciences (Fall 2013)

References *(Contact information available upon request)*

Dr. Chengquan Huang: Research Professor *University of Maryland*
Dr. Eric Brown de Colstoun: Physical Scientist *NASA Goddard Space Flight Center*
Dr. Bin Tan: Research Scientist *NASA / Science Systems and Applications, Inc.*
Dr. James Tilton: Computer Engineer *NASA Goddard Space Flight Center*
Greg Yetman: Associate Director *CIESIN, Columbia University*

Publications

Journal Papers

o P. Wang, C. Huang, and E. C. Brown de Colstoun. Mapping 2000–2010 impervious surface change in india using global land survey landsat data. *Remote Sensing*, 9(4):366, 2017.
o K. Sun, X. Geng, P. Wang, and Y. Zhao. A fast endmember extraction algorithm based on gram determinant. *IEEE Geoscience and Remote Sensing Letters*, 11(6):1124–1128, 2014.

Scientific Data Products

o E. C. Brown de Colstoun, C. Huang, P. Wang, J. C. Tilton, B. Tan, J. Phillips, S. Niemczura, P. Y. Ling, and R. E. Wolfe. Global man-made impervious surface (GMIS) dataset from landsat. *https://doi.org/10.7927/H4P55KKF*.
o P. Wang, C. Huang, E. C. Brown de Colstoun, J. C. Tilton, and B. Tan. Global human built-up and settlement extent (HBASE) dataset from landsat. *https://doi.org/10.7927/H4DN434S*.

Conferences

o P. Wang, C. Huang, J. C. Tilton, B. Tan, and E. C. Brown de Colstoun. HOTex: An Approach for Global Mapping of Human Built-up and Settlement Extent. Oral paper presentation at 2017 IEEE

International Geoscience and Remote Sensing Symposium (IGARSS).

o X. Zhan, R. Zhang, P. Wang, C. Huang, I. Csiszar, L. Zhou, and F. Weng. Monitoring Surface Type Changes with S-NPP/JPSS VIIRS Observations. Oral paper presentation at 2017 IEEE International Geoscience and Remote Sensing Symposium (IGARSS).

o P. Wang, C. Huang, J. C. Tilton, B. Tan, and E. C. Brown de Colstoun. A new map of circa 2010 global urban extent from Landsat data. Poster presentation at 2015 AGU Fall meeting.

o P. Wang, C. Huang, J. C. Tilton, B. Tan, and E. C. Brown de Colstoun. Global Urban Extent from Landsat using Multi-level Object-based Texture Features. Poster presentation at 2015 NASA Carbon Cycle & Ecosystems Joint Science Workshop.

o P. Wang, C. Huang, J. C. Tilton, B. Tan, and E. C. Brown de Colstoun, R. E. Wolfe, J. Philips, and P.-Y. Ling. Urban Extent Mapping Using Object-Based Texture Classification and Landsat Data. Poster presentation at 2014 AGU Fall meeting.