

XIAOHUI (Sherry) QIAO

PhD, Civil Engineering

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EDUCATION

PhD , Civil Engineering <i>GPA: 4.0/4.0</i>	Brigham Young University, UT	2020
Dissertation: <i>Advancing the accessibility, reusability, and interoperability of hydrologic modeling workflows through web services.</i> (Advisor: Daniel P. Ames)		
MS , Environmental Science	University of Chinese Academy of Sciences, China	2012
BS , Environmental Engineering	Harbin Institute of Technology, China.	2009

WORK EXPERIENCE

Postdoctoral Research Associate	University of Florida, FL	2020-now
Research & Teaching Assistant	Brigham Young University, UT	2015-2020
Certified Environmental Engineer	Beijing Construction Eng. Group, China	2012-2015
Research & Teaching Assistant	University of Chinese Academy of Sciences, China	2009-2012

RESEARCH INTERESTS

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- Geospatial computing
 - WebGIS and cyberinfrastructure development
 - Hydroinformatics, large-scale flood prediction and inundation mapping
 - Natural disaster impact assessment

TECHNICAL PROFICIENCY

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- ESRI ArcGIS Suite: Desktop, Pro, ModelBuilder, ArcPy, Online, Server, API
 - Open-source GIS: GRASS GIS, GeoServer, GDAL, OpenLayers, Leaflet, PostGIS
 - Python, R, Matlab, HTML/JS/CSS, Django
 - Linux, macOS, Git, Jupyter, Docker, Virtual Machine
 - Web App and Web Service (OGC WPS, REST APIs) development

PEER-REVIEWED PUBLICATIONS

X Qiao, Z Li, F Zhang, et al. 2021. A container-based approach for sharing environmental models as web services. *International Journal of Digital Earth*

X Zheng, F Wang, W Jiang, X Zheng, Z Wu, **X Qiao**. 2021. Construction and Spatio-temporal Derivation of Hazardous Chemical Leakage Disaster Chain. *International Journal of Image and Data Fusion*

W Jiang, F Wang, L Fang, X Zheng, **X Qiao**, et al. 2021. Modelling of wildland-urban interface fire spread with the heterogeneous cellular automata model. *Environmental Modelling and Software*

X Qiao, EJ Nelson, D Ames, et al. 2019. A Systems Approach to Routing Global Gridded Runoff through Local High-Resolution Stream Networks for Flood Early Warning Systems. *Environmental Modelling and Software*

X Qiao, Z Li, D Ames, et al. 2019. Simplifying the deployment of OGC web processing services (WPS) for environmental modelling – Introducing Tethys WPS Server, *Environmental Modelling and Software*

M Sikder, C. David, G. Allen, **X Qiao**, et al. 2019. Evaluation of Available Global Runoff Datasets through a River Model in Support of Transboundary Water Management in South and Southeast Asia, *Frontiers in Environmental Science*

X Qiao, EJ Nelson, D Ames, et al. 2019. A tool to map gridded land surface model forcing to river routing at global or national scale. 1st Regional Conference on Environmental Modeling and Software (Best Paper Award, iEMSs 2019, Nanjing, China)

X Qiao, Z Li, D Ames, et al. 2018. A Simplified Approach for Water Resources Web Processing Services (WPS) Development. 9th International Congress on Environmental Modelling and Software (iEMSs 2018, Fort Collins, CO)

Z Li, M Wang, J Zhao, **X Qiao**, 2014. Analysis on intersections between fractures by parallel computation. International Journal of Coal Science & Technology

Z Li, J Zhao, **X Qiao**, et al. 2014. An automated approach for conditioning discrete fracture network modeling to in-situ measurements. Australian Journal of Earth Sciences

X Qiao, J Chen, M Wang, et al. 2013. Spatial distribution of heavy metals in groundwater from the piedmont to coastal areas in the North China Plain. Earth and Environment

PRESENTATIONS

A Systems Approach to Routing Global Gridded Runoff through Local High-Resolution Stream Networks for Flood Early Warning Systems. 2019 CUAHSI Hydroinformatics Conference, Provo, UT

A tool to map gridded land surface model forcing to river routing at global or national scale. 1st Regional Conference on Environmental Modeling and Software (iEMSs 2019), Nanjing, China

A Simplified Approach for Water Resources Web Processing Services (WPS) Development. 9th International Congress on Environmental Modelling and Software (iEMSs 2018), Fort Collins, CO

Tethys WPS Server: An open source platform for Water Resources Web Processing Services development. 2018 AGU Fall meeting, Washington, D.C.

TECHNICAL REPORTS

C Court, J Ferreira, A Ropicki, **X Qiao**, et al. 2021. Quantifying The Socio-Economic Impacts of Harmful Algal Blooms in Southwest Florida in 2018.

C Court and **X Qiao**. 2021. UF/IFAS Assessment of Agricultural Losses and Damages resulting from Hurricane Elsa.

C Court, J Ferreira, E Orlando, **X Qiao**. 2020. Preliminary Assessment of Agricultural Losses and Damages resulting from Hurricane Sally.

HONORS & AWARDS

Best Paper Award, iEMSs 2019 conference

Fully Funded Doctoral Program (BYU)

Civil & Env. Eng. Dept. Graduate Students Scholarship (BYU, Department level)

Phi Kappa Phi Academic Honor Society Member (top 10% graduate students)

Outstanding Student Leadership Award, 2011 (UCAS, University level)

Outstanding Graduate Award, 2012 (Beijing, Province/State level)

Outstanding Graduate Award, 2009 (Shandong, Province/State level)

REVIEWER EXPERIENCE

Environmental Modelling & Software (Journal, invited reviewer)

Water and Hydrocomplexity (Journal, review editor)

Engineering Applications of GIS - Lab Manual (Book)

PROFESSIONAL MEMBERSHIPS

American Geophysical Union (AGU)

International Environmental Modelling and Software Society (iEMSs)

American Society of Civil Engineers (ASCE)