

# Curriculum Vitae

## Xiaoyu (Cynthia) Liang

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### EDUCATION

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|-------------------------|--|
| Ph.D.<br>2020 – present | Department of Geography, The Ohio State University <ul style="list-style-type: none"><li>GPA: 4.00/4.00</li></ul>  |
| M.A.<br>2018 – 2020     | Department of Geography, The Ohio State University <ul style="list-style-type: none"><li>Thesis: Quantile Regression-based Change Detection using Landsat Analysis Ready Data</li></ul>  |
| B.E.<br>2014 – 2018     | Department of Remote Sensing Science & Technology, Wuhan University, China <ul style="list-style-type: none"><li>Thesis: The Application of Case-based Reasoning on Taxi Passenger Flow Prediction in Urban Hotspots</li></ul> |

### RESEARCH INTERESTS

Human-environment interactions, natural hazards, environmental justice, sustainability, (sub)urbanization, geographical information science, remote sensing

### PUBLICATIONS

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| 2023 | <b>Xiaoyu Liang</b> and Desheng Liu. Socioeconomic and Environmental Drivers of the Dynamics of Wildland-Urban Interface in Alaska (in preparation)<br><br><b>Xiaoyu Liang</b> and Desheng Liu. Quantile Regression-based Change Detection using Landsat Analysis Ready Data (in preparation)<br><br><b>Xiaoyu Liang</b> and Desheng Liu. Wildfire Vulnerability in Alaska: Spatial Association between Social Vulnerability, Wildfire Hazard and Wildfire Mitigation Programs (submitted to <i>Landscape and Urban Planning</i> , under review) |
| 2022 | <b>Xiaoyu Liang</b> , Desheng Liu, Zhihao Wang, and Jian Wang. Characterizing the Dynamics of Wildland-Urban Interface and the Potential Impacts on Fire Activity in Alaska from 2000 to 2010. <i>Landscape and Urban Planning</i> , 228, 104553. doi: 10.1016/j.landurbplan.2022.104553   |
| 2019 | <b>Xiaoyu Liang</b> , Mi-Hyun Park, and Michael K. Stenstrom. Socio-economic Factors of High Trash Generation in the City of Los Angeles. <i>Water Science and Technology</i> . 2019;80(3):408-417. doi:10.2166/wst.2019.283   |

### PRESENTATIONS

- |      |   |
|------|---|
| 2023 | <b>Xiaoyu Liang</b> and Desheng Liu. Spatial Pattern of Social Vulnerability and its Association with Wildfire Hazard Potential and Wildland-Urban Interface in Alaska. <i>American Geophysical Union Fall Meeting</i> , San Francisco, CA. |
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## Curriculum Vitae

**Xiaoyu Liang** and Desheng Liu. Socioeconomic and Environmental Drivers of the Dynamics of Wildland-Urban Interface in Alaska. *East Lakes Division of the American Association of Geographers Annual Meeting*, Oregon, OH

**Xiaoyu Liang** and Desheng Liu. Environmental Justice Implications of Wildfire Mitigation Programs in Alaska. *Interdisciplinary Research Fall Forum*, The Ohio State University, Columbus, OH

**Xiaoyu Liang** and Desheng Liu. Wildfire Vulnerability in Alaska: Spatial Association between Social Vulnerability, Wildfire Hazard and Wildfire Mitigation Programs. *5th Annual Byrd Center Symposium on Climate Change*, The Ohio State University, Columbus, OH

2021 **Xiaoyu Liang** and Desheng Liu. Characterizing the Dynamics of Wildland-Urban Interface and the Impacts on Fire Activity in Alaska from 2000 to 2010. *American Geophysical Union Fall Meeting*, New Orleans, LA.

2019 **Xiaoyu Liang** and Desheng Liu. Continuous Abrupt Change Detection with Landsat Time Series by Exploiting Spatio-temporal Information. *American Geophysical Union Fall Meeting*, San Francisco, CA.

**Xiaoyu Liang** and Desheng Liu. A Comparison of Three Change Detection Methods on Forest Disturbance, *American Association of Geographers Annual Meeting*, Washington, D.C.

## RESEARCH EXPERIENCE

2020 - present “Human-wildfire Interactions within Wildland-Urban Interface in Alaska”, Department of Geography, The Ohio State University

2019 “New Land Cover Change Detection Methods using Landsat Time Series Data”, Department of Geography, The Ohio State University

“The Influence of Forest Fire on Geostatistical Gap-filling Approach for Landsat 7 ETM+ Images”, Department of Geography, The Ohio State University

2018 Research Assistant, National Science Foundation of China, “Analyzing Customer Flow in Urban Hot Spots”, Wuhan University

Co-Principal Investigator, Chinese Academy of Sciences, “Quick Extraction and Mapping of Earthquake”, Wuhan University, \$1,580

2017 Research Assistant, “High Trash Generation in the City of Los Angeles”, Department of Civil & Environmental Engineering, University of California, Los Angeles

2016 Co-Principal Investigator, “Unmanned Aerial Vehicle Based Safety Monitoring System in Tour Sites”, Ministry of Education of P.R.C, \$1,475

## HONORS AND AWARDS

2019 ENGIE-Axiom Scholarship Award, The Ohio State University, \$5,000

2017 Cross-disciplinary Scholars in Science and Technology Scholarship, University of California, Los Angeles, \$7,036

2016 Third-class Prize in 8<sup>th</sup> National University GIS Application Skills Contest (Top 15), Chinese Society for Geodesy, Photogrammetry and Cartography, China

# Curriculum Vitae

Meritorious Winner of Mathematical Contest in Modeling (Top 10%), COMAP  
2015 University Excellent Student, Wuhan University  
Scholarship for Outstanding Students, Wuhan University (Top 10%)

## TEACHING

### Instructor of Record

Department of Geography, The Ohio State University  
GEOG 5210 Fundamentals of Geographic Information Systems

### Graduate Teaching Assistant

Department of Geography, The Ohio State University  
GEOG 5200 Cartography & Map Design  
GEOG 5201 Geovisualization  
GEOG 5222 GIS Algorithms and Programming  
GEOG 5225 Geographic Applications of Remote Sensing  
GEOG 5226 Spatial Simulation and Modeling in GIS

### Guest Lecturer

BIO 398 Arctic Ecology (Department of Biology, Macalester College)

## PROFESSIONAL CERTIFICATION

2021 ARSET Certificate – Satellite Observations and Tools for Fire Risk, Detection, and Analysis, *NASA's Applied Remote Sensing Training Program*  
ARSET Certificate – Using Google Earth Engine for Land Monitoring Applications, *NASA's Applied Remote Sensing Training Program*  
2018 ARSET Certificate – Advanced Webinar: Change Detection for Land Cover Mapping, *NASA's Applied Remote Sensing Training Program*  
2016 MapGIS Development Engineer Occupational Quantification Certificate, *Zondy Cyber Group*

## SERVICES

### Department/University Services

The Ohio State University  
2023 Equity Committee Representative, Graduate Geography Organization  
Sustainability and Environmental Responsibility Committee Member, Council of Graduate Students  
Graduate Student Member, The Climate Consensus

# Curriculum Vitae

## Peer review for journals

Annals of GIS (1)

Environmental Science and Pollution Research (1)

Humanities and Social Sciences Communications (2)

IEEE Transactions on Geoscience and Remote Sensing (1)

ISPRS Journal of Photogrammetry and Remote Sensing (1)

Photogrammetric Engineering & Remote Sensing (1)

## Professional Membership

American Association of Geographers

American Geophysical Union

## **SKILLS**

Skilled in ArcGIS, QGIS, ENVI, ERDAS, GeoDa, and NetLogo

Proficient in C, C++, MATLAB, R, and Python

Basic in Google Earth Engine, C#, AutoCAD, SQL, JavaScript, HTML, and CSS