


Curriculum Vitae

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature: 

Date: 5 July 2018

1. Personal Information.

Alyssa Kathleen Whitcraft

Academic Appointments at UMD

Associate Research Professor July 2018 – Present
Department of Geographical Sciences, University of Maryland, College Park

Assistant Research Professor Aug 2014 – June 2018
Department of Geographical Sciences, University of Maryland, College Park

Research Associate Apr 2014 – Aug 2014
Department of Geographical Sciences, University of Maryland, College Park

Employment Background

Program Manager July 2017 – Present
NASA Earth Observations for Food Security & Agriculture Consortium

Program Scientist May 2015 – Present
GEOGLAM Secretariat; Virtual Location

NASA Earth and Space Science Fellow Sep 2011 – Apr 2014
Department of Geographical Sciences, University of Maryland, College Park

Graduate Research Assistant Apr 2009 – Apr 2014
Department of Geographical Sciences, University of Maryland, College Park

Graduate Teaching Assistant & Lecturer Aug 2008 – Aug 2012
Department of Geographical Sciences, University of Maryland, College Park

Undergraduate Research Assistant Jan 2006 – Jun 2007
Department of Geography, University of California, Los Angeles

Education

Ph.D., Geographical Sciences, 2014

*Dissertation: "Developing Earth Observation Requirements for Global Agricultural Monitoring:
Toward a Multi-Mission Data Acquisition Strategy"*

Supervisor: Christopher O. Justice

Summa cum Laude

Department of Geographical Sciences

University of Maryland, College Park

B.A., Geography/Environmental Studies, 2007

B.A., International Development Studies, 2007

Summa cum Laude

Honors College

University of California, Los Angeles

2. Research, Scholarly, Creative and Professional Activities

Peer-Reviewed Publications (published)

See, L., Moorthy, I., McCallum, I., Fritz, S., Laso Bayas, J.C., Waldner, F., Jacques, D., Becker-Reshef, I., **Whitcraft, A.K.**, et al. (*in press*). A Comparison of Global Agricultural Monitoring Systems and Current Information Gaps. *Agricultural Systems*

Whitcraft, A. K., Becker-Reshef, I., Killough, B. D., & Justice, C. O. (2015). Meeting Earth Observation Requirements for Global Agricultural Monitoring: An Evaluation of the Revisit Capabilities of Current and Planned Moderate Resolution Optical Earth Observing Missions. *Remote Sensing* 7(2), 1482-1503.

Whitcraft, A. K., Becker-Reshef, I., & Justice, C. (2015). A Framework for Defining Spatially Explicit Earth Observation Requirements for a Global Agricultural Monitoring Initiative (GEOGLAM). *Remote Sensing*. *Remote Sensing* 7(2), 1461-1581.

Whitcraft, A. K., Vermote, E. F., Becker-Reshef, I., & Justice, C. O. (2015). Cloud cover throughout the agricultural growing season: Impacts on passive optical earth observations. *Remote Sensing of Environment*, 156, 438–447. doi:10.1016/j.rse.2014.10.009

Whitcraft, A. K., Becker-Reshef, I., & Justice, C. O. (2014). Agricultural growing season calendars derived from MODIS surface reflectance. *International Journal of Digital Earth*, 1–25. doi:10.1080/17538947.2014.894147

Kerr, S., Collins, L., Jo, I., Monroe-Ossi, H., Ray, W., **Whitcraft, A.K.**, Solem, M., & Stoltman, J.P. (2013). Teacher education and geography: Research perspectives. *Research in Geographic Education* 15(2), 44-58.

Publications (In Review, Submitted, or In Prep)

Whitcraft, A.K., Jarvis, I., Kerblatt, F., Kavvada, A., Becker-Reshef, I., and Justice, C.O. (*in prep*). No Pixel Left Behind: Linking Earth Observations for Agriculture and the United Nations Sustainable Development Goals. *Remote Sensing of Environment*.

Becker-Reshef, I, Justice, C.J., Barker, B., Nakalembe, C., Humber, M., Sanchez, A., **Whitcraft, A.K.**, Justice, C.O., Rembold, F., Bonifacio, R., Zappacosta, M., and Verdin, J. (*in prep*). Strengthening agricultural decisions in countries at risk of food security: The GEOGLAM Crop Monitor for Early Warning. *Remote Sensing of Environment*.

Whitcraft, A.K., Jarvis, I., Becker-Reshef, I, and Justice, C.O. (*in prep*) GEOGLAM: Earth Observation in Support of Improved Decision, Policy, and Action for Agriculture and Food Security. In: *Earth Observation Applications and Global Policy Frameworks*. Eds.: A. Kavvada, L. Friedl, and D. Cripe.

McCartney, S., Becker-Reshef, I., Bolten, J., McNally, A., Mladenova, I., Peters-Lidard, C., Rosenzweig, C., Ruane, A.C., and **Whitcraft, A.** (*in prep*) Hydrologic and Agricultural Earth Observations and Modeling for the Water-Food Nexus. *Frontiers*.

Becker-Reshef, I., **Whitcraft, A.K.**, Sahajpal, R., Barker, B., Oliva-Pavon, P., Puricelli, E., et al. (*in prep*). GEOGLAM Crop Masks and Calendars. *Earth System Science Data*.

Talks

2018 *Virtual Workshop: Using Geospatial Tools for Agricultural Monitoring; IICA Webinar Series; Heather McNairn and Alyssa Whitcraft (invited presentation)*

2018 *NASA Food Security & Agriculture Consortium (EOFSAC); NASA Applied Sciences Program Water Resources Science Team Meeting, Boulder, CO; Inbal Becker-Reshef, Alyssa Whitcraft, and Chris Justice et al., (presenting invited author)*

2018 *EOFSAC Exhibition at The Science of Food Security; US House Earth & Space Science Caucus; Washington, D.C., Alyssa Whitcraft, Estefania Puricelli, and Mike Humber (invited exhibit)*

- 2018 *G20 Global Agricultural Monitoring: Improving the Use of Earth Observations for Agricultural Monitoring; **GODAN Webinar Series**, online <https://www.youtube.com/watch?v=6DUXDf-RmFc&feature=youtu.be>; Ian Jarvis and Alyssa Whitcraft (invited presentation)*
- 2018 *Contribuciones de la NASA al Monitoreo Agrícola y la Seguridad Alimentaria; **NASA Hyperwall Presentation for FONTAGRO**, Greenbelt, MD; Alyssa Whitcraft (invited presentation, Spanish language)*
- 2018 *GEOGLAM EO Data Requirements: Setting the Stage for the Meeting; **Workshop on Data and Systems Requirements for Operational Agricultural Monitoring**, Ispra, Italy; Alyssa Whitcraft and Pierre Defourny.*
- 2018 *GEOGLAM Latinoamérica Presentation by Argentina on the new regional remote sensing initiative; **Agricultural Market Information System Rapid Response Forum**, Rosario, Argentina; Carlos M. Di Bella, Alyssa Whitcraft, Matt Hansen, Inbal Becker-Reshef, Chris Justice, and Ian Jarvis (Invited Presentation)*
- 2018 *G20 Global Agriculture Monitoring Initiative: GEOGLAM; **1st Meeting of the G20 Agricultural Deputies**, Rosario, Argentina; Ian Jarvis, Alyssa Whitcraft, Inbal Becker-Reshef, et al. (Invited Presentation)*
- 2018 *EOFSAC: Earth Observation for Food Security & Agriculture Consortium; **EO for Food Security and Sustainable Agriculture Community Workshop**, Frascati, Italy; Antonio Sanchez, Mike Humber, Inbal Becker-Reshef, Alyssa Whitcraft, et al. (Invited Presentation)*
- 2017 *GEOGLAM Earth Observation Data Coordination & Capacity Development Updates; **GEO Plenary XIV: GEOGLAM Advisory Committee Session**; Washington, D.C., Alyssa Whitcraft (invited presentation)*
- 2017 *AmeriGEOSS Food Security & Sustainable Development Working Group: Status and Plans for 2018 and Beyond; **GEO Plenary XIV: AmeriGEOSS Session**; Washington, D.C. Alyssa Whitcraft (invited presentation)*
- 2017 *Land Imaging Requirements Assessment: GEOGLAM Case and its Applicability; **CEOS Joint LSI-VC / GEOGLAM / SDCG Meeting**; Frascati, Italy; Alyssa Whitcraft (invited presentation)*
- 2017 *GEOGLAM Earth Observations Data Requirements Refresh; **CEOS Ad Hoc Working Group for GEOGLAM Meeting**; Frascati, Italy; Alyssa Whitcraft (invited presentation)*
- 2016 *Reducing the Impact of Cloud Cover on Operational Crop Inventories; **AGU Fall Meeting**, San Francisco, CA; Alyssa Whitcraft, Catherine Champagne, Bahram Daneshfar, Thierry Fisette, and Andrew Davidson (poster)*
- 2016 *Establishing Networks to Lever Investments in Developing Capacity for Agricultural Monitoring: A GEOGLAM Perspective; **AGU Fall Meeting**, San Francisco, CA; Alyssa Whitcraft and Inbal Becker-Reshef (panel presenter)*
- 2016 *GEOGLAM Vegetation Index and Phenology Products; **CEOS LPV VI & LSP Workshop**; Fort Collins, CO; Alyssa Whitcraft & Eric Vermote (invited)*
- 2016 *The GEOGLAM Initiative: Mandate, Activities, and Major Accomplishments So Far; **African Association of Remote Sensing of Environment**, Kampala, Uganda; Catherine Nakalembe and Alyssa Whitcraft, et al. (invited presentation)*
- 2016 *GEOGLAM & JECAM: International Collaboration on Operational Research & Development for Agricultural Monitoring; **Crop Monitoring System and the Risk Management for Smart Agriculture**, Taichung, Taiwan; Alyssa Whitcraft et al., (invited keynote presentation)*
- 2016 *Developing and evaluating space-based Earth observation data requirements for GEOGLAM; **CEOS LSI-VC-2**, Los Angeles, CA; Alyssa Whitcraft et al., (invited presentation)*
- 2016 *The GEOGLAM Initiative; **NCAR Workshop on Climate Change, Global Food Security, and the US Food System**; Alyssa Whitcraft et al (invited presentation)*
- 2016 *Satellite EO Data Requirements: The GEOGLAM Perspective; **Copernicus Agriculture and Forestry Applications User Requirements Workshop**, Brussels, Belgium; Alyssa Whitcraft and Inbal Becker-Reshef [presenter] (invited presentation)*
- 2016 *EO Data Coordination: Toward a Multi-sensor Constellation, Engaging Commercial Space Sector, and Improving Data Access, **GEOGLAM Advisory Committee Meeting**, Rome, Italy; Alyssa Whitcraft on behalf of the GEOGLAM Implementation Team*
- 2016 *Summary of GEOGLAM Response to Advisory Committee Recommendations from GEO-XII, **GEOGLAM Advisory Committee Meeting**, Rome, Italy; Alyssa Whitcraft on behalf of the GEOGLAM Implementation Team*

- 2016 *Thoughts on the Needs and Uses of the CEOS Data Cube, **CEOS-QGIS Workshop**, Hampton, VA; Alyssa Whitcraft*
- 2016 *GEOGLAM Perspectives on Sentinel Data ; **CEOS SIT Technical Workshop**, Frascati, Italy; Alyssa Whitcraft et al. (invited presentation, presenting author)*
- 2016 *GEOGLAM & Global-V: A New Optical Mission for Agricultural Monitoring; **Global-V Key User Workshop**, Ghent, Belgium; Alyssa Whitcraft & Michel Deshayes (invited presentation, presenting author)*
- 2015 *Challenges and Opportunities for Developing Capacity in Earth Observations for Agricultural Monitoring: The GEOGLAM Experience; **AGU Fall Meeting**, San Francisco, CA; Alyssa Whitcraft, Inbal Becker-Reshef, Carlos Di Bella, Michel Deshayes, and Chris Justice (presenting author, poster)*
- 2015 *Report back from the GEO Plenary, and updates of CEOS linkages; **JECAM Annual Science Team Meeting**, Brussels, Belgium; Alyssa Whitcraft, on behalf of GEOGLAM Community of Practice, and CEOS Ad Hoc Working Group on GEOGLAM (invited presentation, presenting author)*
- 2015 *Report to GEO Plenary: Overview of the GEO Global Agricultural Monitoring (GEOGLAM) Initiative; **GEO Plenary XII GEOGLAM Outreach Event**, Mexico City; Alyssa Whitcraft on behalf of GEOGLAM Community of Practice (invited presentation, presenting author)*
- 2015 *GEOGLAM Component 4: Data Acquisition & Dissemination Coordination, Link with CEOS; **GEO Plenary XII GEOGLAM Outreach Event**, Mexico City; Alyssa Whitcraft (presenting author)*
- 2015 *GEOGLAM: Enhancing the Use of Earth Observation for Agricultural Monitoring; **IGARSS 2015**; Milan, Italy; Chris Justice, Alyssa Whitcraft, et al. (invited presentation, contributing author)*
- 2015 *The GEOGLAM Initiative: Coordinating Earth Observations for Global Agricultural Monitoring; **UCSB Geography**, Santa Barbara, CA; Alyssa Whitcraft (invited presentation, presenting author)*
- 2015 *The G20 GEO Global Agriculture Monitoring (GEOGLAM) Initiative: Supporting the GEOSS vision for an Agricultural Monitoring System of Systems; **NASA Applied Sciences Supported Contributions**; Washington, DC; Inbal Becker-Reshef, Chris Justice, Alyssa Whitcraft, et al. (contributing author)*
- 2014 *Earth Observations Requirements for Global Agricultural Monitoring: Evaluating the Revisit Capabilities of Current & Planned Moderate Resolution Optical & Thermal Infrared Earth Observing Missions; **AGU Fall Meeting**; San Francisco, CA; Alyssa K. Whitcraft et al., (poster)*
- 2014 *Report back from the GEOGLAM Implementation Planning Meeting; **CEOS Plenary**; Tromso, Norway; Alyssa K. Whitcraft (presenting author)*
- 2014 *Update on Component 4 of GEOGLAM; **GEOGLAM Implementation Planning Meeting**; Beijing, China; Alyssa K. Whitcraft et al. (presenting author)*
- 2014 *Update to the Phase 1 and Phase 1 Acquisition Plan for GEOGLAM; **CEOS Ad Hoc Team for GEOGLAM Co-Community Meeting**; Rome, Italy; Alyssa K. Whitcraft et al. (presenting author)*
- 2014 *Developing and implementing Earth observations requirements in the agricultural monitoring context; **GV2M**; Avignon, France; Alyssa K. Whitcraft et al. (presenting author)*
- 2013 *Developing Earth observations requirements for global agricultural monitoring; **AGU Fall Meeting**; San Francisco, CA; Alyssa K. Whitcraft et al. (presenting author)*
- 2013 *Developing and implementing a data acquisition strategy for global agricultural monitoring: an inter-agency initiative; **AGU Fall Meeting**; San Francisco, CA; Christopher O. Justice, Alyssa K. Whitcraft et al. (presenting author)*
- 2013 *International Global Crop Condition Assessments in the framework of GEOGLAM; **AGU Fall Meeting**; San Francisco, CA; Inbal Becker-Reshef et al. (contributing author)*
- 2013 *Developing Earth Observations Requirements for Global Agricultural Monitoring; **UMD BSOS Research Interaction Day for Graduate Students and Early Career Scientists (BRIDGES)**; College Park, MD; Alyssa K. Whitcraft (poster)*
- 2013 *GEOGLAM: The Global Agricultural Monitoring Initiative: Supporting the GEOSS vision for an Agricultural Monitoring System of Systems; **NASA Water Resources Science Team Meeting**; Lincoln, NE; Inbal Becker-Reshef et al. (contributing author)*

- 2013 *An evaluation of the role and success of online education in undergraduate courses; **National Council on Geographic Education Annual Meeting**; Denver, CO; Rachel Berndtson and Alyssa Whitcraft (co-presenting author)*
- 2013 *Guiding an image acquisition strategy for global agricultural monitoring; **LCLUC Science Team Meeting**; Rockville, MD; Alyssa K. Whitcraft et al. (lead author – invited poster)*
- 2013 *Status Update and Report from Science Data Coordination Group (SDCG-3) Meeting; **GEO – GEOGLAM Implementation Meeting**; Washington, D.C.; Yves Crevier et al. (contributing author)*
- 2013 *GEOGLAM Phased Implementation Plan – Coordination of Satellite Observations Component; **GEO – GEOGLAM Implementation Meeting**; Washington, D.C.; Inbal Becker-Reshef et al. (contributing author)*
- 2013 *Status Update on The GEOGLAM Initiative; **CEOS SDCG-3 Meeting**, Sydney, Australia; Inbal Becker-Reshef et al. (contributing author)*
- 2012 *Guiding an image acquisition strategy: MODIS-derived growing season timing and cloud cover probability as inputs to a global agriculture monitoring (GEOGLAM) system of systems; **AGU Fall Meeting**, San Francisco, CA; A.K. Whitcraft et al. (lead author - poster)*
- 2012 *Global Agricultural Monitoring (GEOGLAM): an international GEO initiative; **CESBIO-ESA-NASA Collaboration for Joint Sentinel-2/Landsat Processing**, NASA GSFC, Greenbelt, MD; Alyssa K. Whitcraft et al. (presenting author)*
- 2012 *MODIS-derived Agricultural Growing Season Calendars for Argentina and Beyond; **Regional Workshop on Monitoring of Agricultural Production: Potentials and Limitations of Remote Sensing**, Buenos Aires, Argentina; A.K. Whitcraft et al. (lead author – poster)*
- 2012 *GEOGLAM Component EO Perspectives & Considerations; **GEOGLAM-CEOS Global Agricultural Monitoring User Requirements Workshop**; Montreal (St. Hubert), Quebec, Canada; Inbal Becker-Reshef et al. (contributing author)*
- 2010 *A Global Map of Hotspots of Land-Cover and Land-Use Change, 2003-2008; **AAG Annual Meeting**, Washington, D.C.; A.K. Whitcraft et al. (presenting author - poster)*

Select Professional and Extension Publications

Whitcraft, A.K., Jarvis, I., Rembold, F., and Baruth, B., 2018. “Summary of the GEOGLAM Workshop on Data and Systems Requirements for Operational Agricultural Monitoring”

Jarvis, I., **Whitcraft, A.K.**, Becker-Reshef, I., et al. 2018. “Stocktaking Overview of the G20 Global Agricultural Monitoring Initiative.”
http://www.earthobservations.org/documents/publications/201803_geoglam_g20.pdf (last accessed 25 May 2018).

Whitcraft, A.K., Kerblat, F., et al. 2017. “Group on Earth Observations Global Agricultural Monitoring (GEOGLAM)” in Earth Observations in support of the 2030 Agenda for Sustainable Development, ed. Japanese Aerospace Exploration Agency
http://ceos.org/document_management/Ad_Hoc_Teams/UNSDGs/SDG_General%20doc/EO-for-2030-Agenda-for-SD_21Mar2017.pdf

Whitcraft, A.K., and GEOGLAM Executive Committee, 2017, “GEOGLAM Governance,” GEOGLAM Foundational Document

Deshayes, M., Becker-Reshef, I., and **Whitcraft, A.K.**, 2017, “GEOGLAM – How Earth Observation data contribute to an improved global food security.” 37th Symposium of the International Symposium on Remote Sensing of Environment. Tshwane, South Africa.

Whitcraft, A.K., and Kerblat, F., August 2016, “GEOGLAM Coordination Supports Policy Action and Decision Making,” CEOS Newsletter #47.

Whitcraft, A.K., McNairn, H., Lemoine, G., LeToan, T., and Sobue, S. April 2016, “The Power of Synthetic Aperture Radar for Global Agricultural Monitoring,” CEOS White Paper
http://ceos.org/document_management/Ad_Hoc_Teams/GEOGLAM/AHTGEOGLAM_Power-of-

[Synthetic-Aperture-Radar-for-Global-Agricultural-Monitoring_Apr2016.pdf](#), last accessed 29 December 2016)

Whitcraft, A. K., January 2016, “Looking Ahead: GEOGLAM in 2016,” Earthzine (<http://earthzine.org/2016/01/30/looking-ahead-geoglam-in-2016/>, last accessed 29 December 2016)

Whitcraft et al. (uncredited, 2015). Report from the Joint GEOGLAM/AgMIP Workshop: “Integrating Earth Observations with Models to Forecast Within-Season Crop Production at Multiple Scales” Workshop held 10-11 March 2015, Beltsville, MD, USA; Published online June 2015: <http://www.usgeoglam.org/workshop>

Creative Works & Other Contributions

1. Global spatially explicit agricultural growing season calendars (0.5 degrees, MODIS-derived)
2. 1st version of Earth observation requirements for national, regional, and global agricultural monitoring
3. Crop condition assessments for the GEOGLAM Crop Monitor for AMIS – led by Inbal Becker-Reshef (UMD), monthly, multi-source, operational, Earth observations-based crop condition assessments by the G20-mandated Group on Earth Observations Global Agricultural Monitoring (GEOGLAM) for the G20-mandated Agricultural Market Information System (AMIS). Support role during early development and prototyping. Published monthly since September 2013: www.cropmonitor.org
4. Global vegetated surface phenological metrics – maximum and minimum NDVI values and the months in which they occur, 2001 & 2014, as derived from MODIS, for the purpose of monitoring and acquisition planning within the web-based Committee on Earth Observation Satellites (CEOS) Visualization Environment (COVE). Released January 2016: www.ceos-cove.org
5. GEOGLAM Data Requirements Submission Tool: Developed an online mechanism for remote sensing scientists and stakeholders engaged in agricultural monitoring to self-report data requirements for new acquisitions and archival data access. Launched online in February 2016: <https://goo.gl/nBgYQF>
6. Clark Avi Mirmelstein, son, born 24 May 2017
7. 2nd version of Earth observation requirements for national, regional, and global agricultural monitoring – a holistic perspective (acquisition, access, utilization) of “best practices” from agricultural research and development site networks as well as through planned workshop of operational monitoring agencies (April 2018)
8. GEOGLAM Website: www.geoglam.org [contributed to design]
9. Center for Global Agricultural Monitoring Research <http://glam.umd.edu> [led design]
10. Earth Observations for Food Security and Agriculture Consortium Website <http://eofsac.org> [co-led design]
11. Establishment and curation of Twitter accounts for GEOGLAM (@G20_GEOGLAM) and the GEOGLAM Crop Monitor (@GEOCropMonitor), establishment-2017.
12. Holistic Agricultural Monitoring Requirements Professional Review – a comprehensive questionnaire targeted at the global agricultural monitoring community to understand the state of use of EO data, current gaps and their drivers, and links between data and information. Launched April 2018 via Qualtrics Survey Software.

Sponsored Research and Programs

- | | |
|-----------|--|
| 2018-2021 | “Community Building and Capacity Development in Support of Food Security & Sustainable Agriculture in the Americas”; NASA ROSES; Principal Investigator (Co-I: Inbal Becker-Reshef); \$588,831. |
| 2017-2022 | “Earth Observations for Food Security and Agriculture Consortium”; NASA ROSES; Co-Investigator/Program Manager (PI: Inbal Becker-Reshef, Science PI: Chris Justice; Co-I’s: multiple), \$14,500,500. |
| 2017-2018 | “An Agricultural Monitoring Use Case for Evaluating Cloud-Based Technologies to Improve NASA DAAC Data Dissemination, User Uptake, and Operational Adoption”; NASA Data Systems (unsolicited); Principal Investigator (Co-I’s: Chris Justice, Inbal Becker-Reshef); \$250,000. |

- 2016-2019 “Supporting National Agricultural Monitoring for Food Security”, NASA ROSES, Co-Investigator (PI: Inbal Becker-Reshef)
- 2017-2018 “Community Building and Capacity Development in Support of Food Security & Sustainable Agriculture in the Americas”; UMD BSOS Dean’s Research Initiative; Principal Investigator, \$4,260.
- 2013-2017 The GEO Global Agricultural Monitoring Task, NASA ROSES, Co-Investigator (PI: Chris Justice; Co-PI: Inbal Becker-Reshef)
- 2013-2017 Global Monitoring of Agricultural Drought NASA ROSES, Co-Investigator (PI: Inbal Becker-Reshef; Co-PI: Chris Justice)

Fellowships, Prizes, and Awards

- 2014 O.E. Baker Award; UMD Dept. of Geographical Sciences Outstanding Graduate Student Service
- 2011-2014 NASA Earth and Space Science Fellowship, “Developing an Image Acquisition Strategy for Global Agricultural Monitoring”; Co-I (PI: Chris Justice, advisor)
- 2008-2012 Burnand-Partridge Foundation Scholarship
- 2008-2010 UMD Department of Geography Block Graduate Student Fellowship
- 2007 UCLA Blackman Family Award; UCLA Dept. of Geography Outstanding Undergraduate Student

3. Teaching, Mentoring and Advising.

Courses taught

- Geography 372 (35 Students, Online): Introduction to Remote Sensing
- Geography 328G (20 Students, Study Abroad Course): Italy: Land, Culture, and Economy
- Geography 372 (30 Students, Traditional Classroom): Introduction to Remote Sensing

Major Programs Co-Established

- AmeriGEOSS Food Security & Sustainable Agriculture Working Group
- GEOGLAM Latinoamérica
- AfriGAM (African Global Agricultural Monitoring)

Professional and Extension Education

Capacity Development Community Membership:

1. Committee on Earth Observation Satellites Working Group on Capacity Development Agriculture PoC (2015-Present)
2. GEOGLAM Capacity Development Thematic Coordination Team; Interim Co-Lead (2015-2018)
3. Global Open Data on Agriculture and Nutrition Group; Member (2018-Present)

Capacity Development Workshops Organized:

1. Sample-Based Area Estimation, August 2018, San Jose dos Campos, Brazil (1-day hands-on workshop led by Viviana Zalles and Matt Hansen; follow on to March 2018 training)
2. National-scale cropland mapping training, March 2018, College Park, MD. (5-day hands-on training led by Matt Hansen with technicians from Brazil, Argentina, Chile, Mexico).
3. GEOGLAM Training at AmeriGEOSS Week, August 2017, San Jose, Costa Rica (3-day course on remote sensing of agriculture, GEOGLAM Crop Monitor, and Global Agricultural Monitoring (GLAM) system – Spanish only)
4. GEOGLAM Training at AmeriGEOSS Week, June 2016, Bogota, Colombia (4-day course on remote sensing of agriculture, GEOGLAM Crop Monitor, and Global Agricultural Monitoring (GLAM) system – Spanish, English, and Portuguese)

4. Service and Outreach

Reviewing Activities for Journals

Served as a reviewer for:

- Remote Sensing of Environment

- *Remote Sensing*
- *International Journal of Applied Earth Observation and Geoinformation*
- *Wetlands Ecology and Management*
- *PLOS One*
- *IEEE Transactions on Geoscience and Remote Sensing*

Campus Service

2018-Present	<i>UMD DoGS Research Faculty Sub-committee on Promotions Criteria for Research Faculty</i>
2014-2015	<i>UMD DoGS Teaching Committee; Research Faculty Representative</i>
2013-2014	<i>UMD Behavioral and Social Sciences Online and Blended Learning Task Force; Contributing Participant</i>
2012-2014	<i>UMD DoGS Undergraduate Online Education Task Force; Co-Lead</i>
2013	<i>National Geographic Society Grosvenor Center Conference on Geographic Education Research; Early Career Scientist</i>
2013	<i>UMD Behavioral and Social Sciences Research Interaction Day for Graduate and Early Career Scientists (BRIDGES) Planning Committee; Co-founder</i>
2011-2013	<i>UMD Behavioral and Social Sciences Dean's Graduate Student Advisory Council; DoGS Representative</i>
2010-2011	<i>UMD DoGS Graduate Student Organization; President</i>

National Service

2015-Present	<i>US GEO Americas Coordination Working Group; Agriculture PoC</i>
2009-2010	<i>Association of American Geographers Teller's Committee; Member</i>

International

2018-Present	<i>Grupo de Trabajo Americano para el Monitoreo Agrícola (GT-AMA) aka Agricultural Monitoring in the Americas (AMA-WG); Coordinator and Founder</i>
2016-2017	<i>AfriGAM (African GEOGLAM Regional Network); Co-coordinator</i>
2016-2017	<i>CAS-RADI (China) & VITO (Belgium) Joint Satellite Mission "Global-V" Key User Group; Consultant</i>
2015-Present	<i>NASA Earth Science Division, CEOS Systems Engineering Office; Consultant [paid]</i>
2015-Present	<i>GEOGLAM Executive Committee; Coordinator</i>
2015-Present	<i>AmeriGEOSS Food Security Working Group; Lead (since 2016) & USA Point of Contact</i>
2015-Present	<i>GEOGLAM Latinoamérica; Co-founder and coordinator</i>
2012-Present	<i>CEOS Ad-Hoc Working Group for GEOGLAM; Thematic Expert on Agriculture/Data Coordination</i>

Leadership Roles in Meetings & Conferences

2018	<i>Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge; AGU Fall Meeting, Washington, D.C.</i>
2018	<i>Use of Earth Observations in Mitigating Major Environmental Challenges in the Americas; AGU Fall Meeting, Washington, D.C.</i>
2018	<i>NASA EOFSAC: Linking Across Major GEOGLAM Contributory Programs; EOFSAC at European Commission; Ispra, Italy.</i>
2018	<i>Holistic Earth Observation Requirements for Agricultural Monitoring: An Operational User Workshop; GEOGLAM Secretariat-European Commission; Ispra, Italy.</i>
2018	<i>Emerging Technologies and Methods in Earth Observation for Agricultural Monitoring; Joint EOFSAC-USDA-AAFC Workshop; USDA ARS, Beltsville, MD.</i>
2017	<i>Emerging Earth Observation Technologies and Techniques in Global Agricultural Monitoring: GEOGLAM and Other Activities; AGU Fall Meeting, New Orleans, LA</i>
2016	<i>Advances in Earth Observation for Agricultural Monitoring (GEOGLAM): Food Security & Early Warning; AGU Fall Meeting, San Francisco, CA</i>

- 2016 *Building Sustained Capacity to Use Earth Observations to Enhance Environmental Management Decisions, Actions, and Policy; AGU Fall Meeting, San Francisco, CA*
- 2016 *Special Session on GEOGLAM; 11th International Conference of the African Association of Remote Sensing of the Environment, Kampala, Uganda*
- 2016 *Next Generation Earth Observation Data Requirements for Agricultural Monitoring; JECAM Annual Science Team Meeting, Kyiv, Ukraine*
- 2015 *Advances in Earth Observations for Regional to Global Agricultural Monitoring: GEOGLAM and Other Activities; AGU Fall Meeting, San Francisco, CA*
- 2015 *GEOGLAM Advisory Committee Meeting; GEO Plenary XII, Mexico City, Mexico*
- 2015 *GEOGLAM; International Symposium on Digital Earth, Halifax, Canada*
- 2014 *Earth Observations for National to Global Scale Agricultural and Rangeland Monitoring; AGU Fall Meeting, San Francisco, CA*
- 2013 *Earth Observations for Global Agricultural Monitoring (B41A); AGU Fall Meeting, San Francisco, CA*
- 2013 *Side Meeting on Earth Observations for GEOGLAM; Brussels, Belgium*
- 2013 *UMD BSOS Research Interaction Day for Graduate and Early Career Scientists (BRIDGES); College Park, MD*