

J. MICHAEL (MIKE) JOHNSON

Curriculum Vitae

September 25, 2019

Department of Geography · University of California, Santa Barbara, California

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EDUCATION:

- 2015 - present** **PhD Candidate in Geography**
 > University of California, Santa Barbara, California (UCSB)
- 2010 - 2015** **B.S. Anthropology & Geography Cum Laude**
 > California Polytechnic State University, San Luis Obispo, CA
- Minors**
 > Geographic Information Systems (GIS) for Agriculture
 > Water Science (Watershed Management Emphasis)
 > Statistics
 > Environmental Studies
 > Economics

AWARDS, FELLOWSHIPS, AND GRANTS:

Grants, Fellowships, Awards

Year	Project	Funding Source	Amount
2019	Jack & Laura Dangermond Fellowship	Jack and Laura Dangermond	\$5,000
2019	Visting Scholar Research Grant	Vrije Universiteit Amsterdam	\$2,500
2018	COMET Partners Grant	UCAR/NOAA National Water Center	\$15,000
2018	Summer Support Research Grant	UCSB Geography	\$2,400
2017	UC Global Health Institute Seed Grant	UCGHI Planetary Health Center	\$10,000
2015	Disciplines Fellowship	University of California Regents	\$30,000
2015	Top Undergraduate Paper	California Geographical Society	\$500
2015	Outstanding Senior	Cal Poly Department of Geography	

Travel Grants

Year	Project	Funding Source	Amount
2019	AGU	Dangermond Fund	\$500
2018	American Geophysical Union	Graduate Student Association	\$200
2017	American Geophysical Union	Dangermond Fund	\$800
2017	WRF-Hydro Training	CUAHSI	\$500
2016	HAZUS Conference	Dangermond Fund	\$700

EXPERIENCE:

Year	Position	Location
2019	Visiting Researcher	Vrije Universiteit Amsterdam
2019	Spatial Discovery Experts Meeting Attendee	Santa Barbara
2018	Spatial Data Science Faculty Search Committee	UCSB
2018	Visiting Researcher	NCAR Research Applications Laboratory
2018	Visiting Researcher	Vrije Universiteit Amsterdam
2017	Summer Institute Course Coordinator	NOAA National Water Center
2016	Summer Institute Research Fellow	NOAA National Water Center
2016	Head Poster Judge - CGS Annual Conference	California Geographical Society
2015	County GIS Technician	El Paso County, Colorado
2014 - 2015	GIS Peer Assistant	Cal Poly Data Studio
2014 - 2019	Certified Agricultural Irrigation Specialist	Irrigation Association
2014	County GIS Intern	San Luis Obispo County, California
2013	Piedras Blancas Mapping and Restoration Project	Bureau of Land Management / Cal Poly

PUBLISHED WORK:

Peer-Reviewed Journal Papers

- [5] **J.M. Johnson***, Marthe Wens*, Cecilia Zagaria, T.I.E Veldkamp. (2019). *Integrating human behavior dynamics into drought risk assessment - A socio-hydrologic, agent-based approach*. WIREs Water * co-first author. <https://onlinelibrary.wiley.com/doi/full/10.1002/wat2.1345>.
- [4] Keith C. Clarke, **J.M. Johnson**, Tim Trainor. (2019). *Contemporary American Cartographic Research: A Review and Prospective*. Cartography and Geographic Information Science. <https://www.tandfonline.com/doi/full/10.1080/15230406.2019.1571441>.
- [3] **J.M. Johnson**, Jim M. Coll, Paul J. Ruess, and Jordan T. Hastings. (2018). *Challenges and Opportunities for Creating Intelligent Hazard Alerts: The 'FloodHippo' Prototype*. Journal of the American Water Resources Association (JAWRA) 1-10. <https://doi.org/10.1111/1752-1688.12645>.

- [2] H.A. Loaiciga, **J.M. Johnson**. (2018). *Infiltration on sloping terrain and its role on runoff generation and slope stability*. Journal of Hydrology. <https://www.sciencedirect.com/science/article/pii/S0022169418302762>.
- [1] **J.M. Johnson**, H.A. Loaiciga. (2017). *Coupled Infiltration and Kinematic-Wave Runoff Simulation in Slopes: Implications for Slope Stability*. Water. <http://www.mdpi.com/2073-4441/9/5/327>.

In Review

- [3] **J.M. Johnson**, Dinuke Munasinghe, Damilola Eyelade, Sagy Cohen. (2019). *An Integrated Evaluation of the National Water Model (NWM) Height Above Nearest Drainage (HAND) Flood Mapping Methodology*. Natural Hazards and Earth System Sciences. <https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2019-82/>.
- [2] **J.M. Johnson**, Keith C. Clarke. (2019). *AOI: An R package for fast and flexible geocoding, boundary query, and AOI generation*. Journal of Open Source Software. https://github.com/mikejohnson51/AOI/blob/master/paper/output/2019-09-06_paper.pdf.
- [1] **J.M. Johnson**, Keith C. Clarke. (2019). *What is Water Security?* NA.

Technical Reports

- [3] **J.M. Johnson**, Coll J.M, et al.. (2017). *National Water Centers Innovators Program Summer Institute Report*. Consortium of Universities for the Advancement of Hydrologic Science, Inc. Technical Report 14. https://www.cuahsi.org/uploads/library/CUAHSI_2017SI_TR14V102_DOI.pdf.
- [2] **J.M. Johnson**, Coll J.M, Ruess P.J.. (2016). *OPERA-Operational Platform for Emergency Response and Awareness: Reimagining Disaster Alerts*. National Water Center Innovators Program Summer Institute Report. Consortium of Universities for the Advancement of Hydrologic Science, Inc. Technical Report 13, Ch 11. https://www.cuahsi.org/uploads/library/cuahsi_tr13_8.20.16.pdf.
- [1] Coll J.M, **J.M. Johnson**, Ruess P.J.. (2016). *Radar Measurement and Flow Modeling: Methods*. National Water Center Innovators Program Summer Institute Report. Consortium of Universities for the Advancement of Hydrologic Science, Inc. Technical Report 13, Ch 1. https://www.cuahsi.org/uploads/library/cuahsi_tr13_8.20.16.pdf.

Cartography

- [3] **J.M. Johnson**. (2017). *Peoples and Regions of Africa [map]*. Scale not given. Cole, Herbert M. Maternity Mothers and Children in the Arts of Africa, CT: Yale University Press.
- [2] **J.M. Johnson**. (2017). *Rising Sea Levels: Hawaii [map]*. Scale not given. Water: An Atlas. Oakland, CA: Guerilla Cartography.
- [1] **J.M. Johnson**. (2017). *Map of Staats-Brabant indicating territories and boundaries c. 1648 [map]*. Scale not given. van de Meerendonk et al. Striving for Unity: The Significance and Original Context of Political Allegories by Theodoor van Thulden for 's-Hertogenbosch Town Hall. Early Modern Low Countries. Figure 6. <https://www.emlc-journal.org/articles/10.18352/emlc.26/>.

PRESENTATIONS:

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|------|-----------------|---|--------------|
| [15] | Dec 2018 | American Geophysical Union Fall Meeting
<i>The National Water Model and R: Providing fast discovery, access, and usability of NWM output and earth systems data</i> | presentation |
| [14] | Dec 2018 | American Geophysical Union Fall Meeting
<i>Drought adaptation behavior of agricultural stakeholders: An Agent Based Model for Kenya</i> | presentation |

[13]	June 2018	International Congress on Environmental Modelling and Software <i>An agent-based approach to evaluating sustainable drought adaptation policy</i>	presentation
[12]	June 2018	International Congress on Environmental Modelling and Software <i>Simulating dynamic drought adaptation behavior of agricultural stakeholders using Agent-Based Models</i>	presentation
[11]	April 2018	European Geophysical Union <i>Integrating Adaption behavior in drought risk analysis</i>	poster
[10]	Dec 2017	American Geophysical Union Fall Meeting <i>HydroData: Discover Earth Systems Data with R</i>	eLightning talk
[9]	July 2017	CUAHSI Hydroinformatics Conference <i>Real-time Discharge-to-Damage Flood Mapping 'Anywhere, USA'</i>	presentation
[8]	May 2017	@Spatial Tech Talk UCSB Spatial Center <i>Accessing National Water Model Output</i>	presentation
[7]	Nov 2016	UCGIS Webinar <i>2017 CUAHSI SI: Collaborative Problem Solving at the National Water Center</i>	presentation
[6]	Nov 2016	HAZUS Users Conference <i>Reimagining Disaster Alert Systems: OPERA</i>	presentation
[5]	Oct 2016	UCSB-SDSU Retreat <i>The Five Meanings of Water Security</i>	presentation
[4]	July 2016	CUAHSI Biennial Conference <i>Densified Radar Measurement and Flow Modeling</i>	poster
[3]	May 2016	California Geography Society 2016 Annual Conference <i>Rising Temperatures and Water Supply: Tools for Water Security</i>	presentation
[2]	April 2016	UC Student Lobby Conference <i>Water Research: Problems with Scale in Data-driven</i>	presentation
[1]	May 2015	California Geography Society 2015 Annual Conference <i>Developing a Decision Support System for California Surface Water</i>	presentation

SCIENTIFIC SOFTWARE:

AOI	An R package for generating spatial boundaries https://mikejohnson51.github.io/AOI/
HydroData	An R package for finding geospatial and observation data https://mikejohnson51.github.io/HydroData/
NWM	An R client for the National Water Model https://mikejohnson51.github.io/NWM/
climateR	An R client for compiling gridded and observation climate data https://github.com/mikejohnson51/climateR
FloodMapping	An R Package for flood mapping using HAND and the National Water Model https://mikejohnson51.github.io/FloodMapping/

nwmRetro

An R package for supplementing NHD volume estimates using the NWM.

<https://github.com/mikejohnson51/nwmRetro>

TEACHING ASSISTANT, DEPARTMENT OF GEOGRAPHY, UCSB:

Summer 2019, 2018, 2016	Living with Global Warming Lower-Division - <i>Dr. Catherine Gautier</i>
Spring 2019	Remote Sensing of the Environment 3 Upper-Division - <i>Dr. Vena Chu</i>
Winter 2019, 2017	Conceptual Modeling and Programming for the Geo-Sciences Upper-Division and Graduate - <i>Dr. Krzysztof Janowicz</i>
Fall 2019, 2018, 2017	Maps and Spatial Reasoning Lower-Division - <i>Dr. Keith Clarke</i>
Spring 2018	Cartographic Design and Geovisualization Upper-Division - <i>Dr. Keith Clarke</i>
Spring 2017	Environmental Water Quality Upper-Division - <i>Dr. Hugo Loaiciga</i>
Fall 2016	Oceans and Atmosphere Lower-Division - <i>Dr. Tim DeVeries</i>

UNDERGRADUATE RESEARCH MENTORSHIP, UCSB:

2018	Dino Korac
2017	Benjamin Sterne, Eric Gunter
2016	Jeremy Neil