

# J. Michael 'Mike' Johnson

🌐 <https://mikejohnson51.github.io> | ✉ [jmj00@ucsb.edu](mailto:jmj00@ucsb.edu) | 🌐 <https://github.com/mikejohnson51>

---

## EDUCATION:

- 2015 - Present**    **University of California Santa Barbara (UCSB)**  
                                 >PhD Candidate in Geography (passed written exams)
- 2010 - 2015**        **California Polytechnic State University, San Luis Obispo, CA**  
                                 >BS Anthropology & Geography Cum Laude
- Minors (1) Water Science (Watershed Management Emphasis) (2) Geographic Information Systems for Agriculture (3) Statistics (4) Environmental Studies (5) Economics**

## AWARDS, FELLOWSHIPS, AND GRANTS:

2019-2020	Dangermond GIS Fellow in Residence	Jack and Laura Dangermond (\$5,000)
2018	Travel Grant (AGU)	Graduate Student Association (\$200)
2018	Summer Research Grant	UCSB Geography (\$2,400)
2018	COMET Partners Grant	UCAR (\$15,000)
2017	Seed Grant	UCGHI Planetary Health Center (\$10,000)
2017	Travel Scholarship (AGU)	Dangermond Fund (\$800)
2017	National Water Center Course Coordinator	CUAHSI (\$15,000)
2017	Travel Grant (WRF-Hydro Training)	CUAHSI (\$500)
2016	Travel Grant (HAZUS Conference)	Dangermond Fund (\$700)
2015-2016	Disciplines Fellowship	University of California Regents (\$30,000)
2015	Outstanding Senior	Cal Poly Department of Geography
2015	Top undergraduate paper	California Geographical Society (\$500)

## EXPERIENCE:

May 2019	Spatial Discovery Experts Meeting	Santa Barbara
Fall 2018	Spatial Data Science Faculty Search	UCSB
Summer 2018	Visiting Researcher	NCAR Research Applications Laboratory
Winter 2018	Visiting Researcher	VU Amsterdam IVM
2014-Present	Certified Agricultural Irrigation Specialist	Irrigation Association
2017	Research Coordinator	NOAA National Water Center
2016	Research Fellow	NOAA National Water Center
2016	Head Poster Judge - CGS Annual Conference	California Geographical Society
2015	GIS Technician	El Paso County, Colorado
2014-2015	GIS Peer Assistant	Cal Poly Data Studio

2014	GIS Intern	San Luis Obispo County
2013	Piedras Blancas Mapping and Restoration:	Bureau of Land Management:

## PUBLISHED WORK:

### Peer Reviewed

- 6 **J.M. Johnson**, Dinuke Munasinghe, Damilola Eyelade, Sagy Cohen. (2019). *A Comprehensive Evaluation of the National Water Model (NWM) - Height Above Nearest Drainage (HAND) Flood Mapping Methodology*. Natural Hazards and Earth System Sciences.
- 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.
- 4 Keith C. Clarke, **J.M. Johnson**, Tim Trainor. (2019). *Contemporary American Cartographic Research: A Review and Prospective*. Cartography and Geographic Information Science.
- 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.
- 2 H.A. Loaiciga, **J.M. Johnson**. (2018). *Infiltration on sloping terrain and its role on runoff generation and slope stability*. Journal of Hydrology.
- 1 **J.M. Johnson**, H.A. Loaiciga. (2017). *Coupled Infiltration and Kinematic-Wave Runoff Simulation in Slopes: Implications for Slope Stability*. Water.

### In Review

- 1 **J.M. Johnson**, Keith C. Clarke. (2019 (in review)). *What is Water Security?* Journal of Hydrology.

### 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.
- 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.
- 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.

### Other

- 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.

## PRESENTATIONS:

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

### Scientific Software:

<b>AOI</b>	<b>An R package for generating spatial boundaries</b> <a href="https://mikejohnson51.github.io/AOI/">https://mikejohnson51.github.io/AOI/</a>
<b>HydroData</b>	<b>An R package for finding geospatial and observation data</b> <a href="https://mikejohnson51.github.io/HydroData/">https://mikejohnson51.github.io/HydroData/</a>
<b>NWM</b>	<b>An R client for the National Water Model</b> <a href="https://mikejohnson51.github.io/NWM/">https://mikejohnson51.github.io/NWM/</a>
<b>climateR</b>	<b>An R client for compiling gridded and observation climate data</b> <a href="https://github.com/mikejohnson51/climateR">https://github.com/mikejohnson51/climateR</a>
<b>FloodMapping</b>	<b>An R Package for flood mapping using HAND and the National Water Model</b> <a href="https://mikejohnson51.github.io/FloodMapping/">https://mikejohnson51.github.io/FloodMapping/</a>
<b>nwmRetro</b>	<b>An R package for supplementing NHD volume estimates using the NWM.</b> <a href="https://github.com/mikejohnson51/nwmRetro">https://github.com/mikejohnson51/nwmRetro</a>

### TEACHING ASSISTANT, DEPARTMENT OF GEOGRAPHY, UCSB:

10	<b>Spring 2019</b>	Remote Sensing of the Environment 3	<i>Dr. Vena Chu</i>
9	<b>Winter 2019</b>	Conceptual Modeling and Programming for the Geo-Sciences	<i>Dr. Krzysztof Janowicz</i>
8	<b>Fall 2018</b>	Maps and Spatial Reasoning	<i>Dr. Keith Clarke</i>
7	<b>Summer 2018</b>	Living with Global Warming	<i>Dr. Catherine Gautier</i>
6	<b>Spring 2018</b>	Cartographic Design and Geovisualization	<i>Dr. Keith Clarke</i>
5	<b>Fall 2017</b>	Maps and Spatial Reasoning	<i>Dr. Keith Clarke</i>
4	<b>Spring 2017</b>	Water Quality	<i>Dr. Catherine Gautier</i>
3	<b>Winter 2017</b>	Conceptual Modeling and Programming for the Geo-Sciences	<i>Dr. Krzysztof Janowicz</i>
2	<b>Fall 2016</b>	Oceans and Atmosphere	<i>Dr. Tim DeVeries</i>
1	<b>Summer 2016</b>	Living with Global Warming	<i>Dr. Catherine Gautier</i>

### UNDERGRADUATE RESEARCH MENTORSHIP, UCSB:

3	<b>2018-present</b>	Dino Korac
2	<b>2016-present</b>	Jeremy Neil
1	<b>2017</b>	Benjamin Sterne & Eric Gunter