J. Michael 'Mike' Johnson

https://mikejohnson51.github.io | jmj00@ucsb.edu

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:

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:

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
2017	**Cartographer:**	Two books and one publication
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:

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

2 **J.M. Johnson**, Dinuke Munasinghe, Damilola Eyelade, Sagy Cohen. (2019 (in review)). *A Comprehensive Evaluation of the National Water Model (NWM) - Height Above Nearest Drainage (HAND) Flood Mapping Methodology.* Natural Hazards and Earth System Sciences.

3 **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.

5 **J.M. Johnson**, Pat Johnson, Keith C. Clarke. (TBD). *A National Scale System for Local Streamflow Visualization.* In preparation.

6 **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.

7 H.A. Loaiciga, **J.M. Johnson**. (2018). *Infiltration on sloping terrain and its role on runoff generation and slope stability.* Journal of Hydrology.

8 **J.M. Johnson**, H.A. Loaiciga. (2017). *Coupled Infiltration and Kinematic-Wave Runoff Simulation in Slopes: Implications for Slope Stability.* Water.

9 **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.

10 **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.

11 **J.M. Johnson**. (2017). *Rising Sea Levels: Hawaii [map]. Scale not given.* Water: An Atlas. Oakland, CA: Guerilla Cartography.

12 **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.

13 **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.

14 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.

Presentations:

1	**Dec 2018**	**AGU Fall Meeting** *The National Water Model and R: Providing fast discovery, access, and usability of NWM output and earth systems data*	presentation
2	**Dec 2018**	**AGU Fall Meeting** *Drought adaptation behavior of agricultural stakeholders: An Agent Based Model for Kenya*	presentation
3	**June 2018**	**International Congress on Environmental Modelling and Software** *An agent-based approach to evaluating sustainable drought adaptation policy*	presentation

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

Scientific Software:

1	**AOI**	**An R package for generating spatial boundaries** `https://mikejohnson51.github.io/AOI/`
2	**HydroData**	**An R package for finding geospatial and observation data** `https://mikejohnson51.github.io/HydroData/`
3	**NWM**	**An R client for the National Water Model** `https://mikejohnson51.github.io/NWM/`
4	**climateR**	**An R client for compiling gridded and observation climate data** `https://github.com/mikejohnson51/climateR`
5	**FloodMapping**	**An R Package for flood mapping using HAND and the National Water Model** `https://mikejohnson51.github.io/FloodMapping/`
6	**nwmRetro**	**An R package for supplimenting NHD volume estimates using the NWM.** `https://github.com/mikejohnson51/nwmRetro`

TEACHING ASSISTANT, DEPARTMENT OF GEOGRAPHY, UCSB:

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

UNDERGRADUATE RESEARCH MENTORSHIP, UCSB:

1	**2018-present**	Dino Korac
2	**2016-present**	Jeremy Neil
3	**2017**	Benjamin Sterne & Eric Gunter