

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:

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|-----------|--|---|
| 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:

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| 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**, 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.
- 2 **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.
- 3 Keith C. Clarke, **J.M. Johnson**, Tim Trainor. (2019). *Contemporary American Cartographic Research: A Review and Prospective*. Cartography and Geographic Information Science.
- 4 **J.M. Johnson**, Pat Johnson, Keith C. Clarke. (TBD). *A National Scale System for Local Streamflow Visualization*. In preparation.
- 5 **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.
- 6 H.A. Loaiciga, **J.M. Johnson**. (2018). *Infiltration on sloping terrain and its role on runoff generation and slope stability*. Journal of Hydrology.
- 7 **J.M. Johnson**, H.A. Loaiciga. (2017). *Coupled Infiltration and Kinematic-Wave Runoff Simulation in Slopes: Implications for Slope Stability*. Water.
- 8 **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.
- 9 **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.
- 10 **J.M. Johnson**. (2017). *Rising Sea Levels: Hawaii [map]*. Scale not given. Water: An Atlas. Oakland, CA: Guerilla Cartography.
- 11 **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.
- 12 **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.
- 13 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.

Presentations:

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

4	June 2018	International Congress on Environmental Modelling and Software <i>Simulating dynamic drought adaptation behavior of agricultural stakeholders using Agent-Based Models</i>	presentation
5	April 2018	EGU <i>Integrating Adaption behavior in drought risk analysis</i>	poster
6	Dec 2017	AGU Fall Meeting <i>HydroData: Discover Earth Systems Data with R</i>	eLightning talk
7	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
9	Nov 2016	UCGIS Webinar <i>2017 CUAHSI SI: Collaborative Problem Solving at the National Water Center</i>	presentation
10	Nov 2016	HAZUS Users Conference <i>Reimagining Disaster Alert Systems: OPERA</i>	presentation
11	Oct 2016	UCSB SDSU Retreat <i>The Five Meanings of Water Security</i>	presentation
12	Aug 2016	NCAR <i>FloodHippo and the National Water Model</i>	presentation
13	July 2016	CUAHSI Biennial Conference <i>Densified Radar Measurement and Flow Modeling</i>	poster
14	May 2016	California Geography Society 2016 Annual Conference <i>Rising Temperatures and Water Supply: Tools for Water Security</i>	presentation
15	April 2016	UC Student Lobby Conference <i>Water Research: Problems with Scale in Data-driven</i>	presentation
16	May 2015	California Geography Society 2015 Annual Conference <i>Developing a Decision Support System for California Surface Water</i>	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 supplementing NHD volume estimates using the NWM. https://github.com/mikejohnson51/nwmRetro

TEACHING ASSISTANT, DEPARTMENT OF GEOGRAPHY, UCSB:

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

UNDERGRADUATE RESEARCH MENTORSHIP, UCSB:

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