

# J. Michael 'Mike' Johnson

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## 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:

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

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

#### Scientific Software:

1	AOI	<b>An R package for generating spatial boundaries</b> <a href="https://mikejohnson51.github.io/AOI/">https://mikejohnson51.github.io/AOI/</a>
2	HydroData	<b>An R package for finding geospatial and observation data</b> <a href="https://mikejohnson51.github.io/HydroData/">https://mikejohnson51.github.io/HydroData/</a>
3	NWM	<b>An R client for the National Water Model</b> <a href="https://mikejohnson51.github.io/NWM/">https://mikejohnson51.github.io/NWM/</a>
4	climateR	<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>
5	FloodMapping	<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>
6	nwmRetro	<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:

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

### UNDERGRADUATE RESEARCH MENTORSHIP, UCSB:

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