

# Rich A. Pauloo

PhD Candidate, Physical Hydrology, UC Davis  
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## EDUCATION

*University of California, Davis*, Ph.D. candidate Physical Hydrology expected 2020  
*University of California, Berkeley*, B.S. Biology & minor in Conflict Resolution 2011

## EMPLOYMENT

*University of California, Davis:*

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| NSF IGERT Fellow in <a href="#">Climate Change, Water, and Society</a> | 2015–2017    |
| <a href="#">U.S./China Clean Energy Research Center</a> Researcher     | 2015–present |
| <a href="#">Data Science Initiative</a> Affiliate                      | 2017–present |
| <a href="#">UC Water</a> Graduate Researcher                           | 2017–present |
| Graduate Student Assembly Representative                               | 2016–2018    |

*National Geographic Student Expeditions:*

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| Expedition Leader (Thailand) | 2016 |
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*NatureBridge, Yosemite National Park & Golden Gate National Recreation Area:*

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| Site Manager                   | 2014–2015 |
| Environmental Science Educator | 2013–2014 |

*San Mateo County Office of Education:*

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| Environmental Science Educator | 2012–2013 |
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*University of California, Davis:*

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| Biological Science Technician | 2012 |
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## GRANTS & AWARDS

- **2018** Ken Tanji Service Award, UC Davis (\$500)
- **2018** Best Innovative Tool Development, UC Water Annual Meeting
- **2018** CA Water Data Challenge Winner, 2018 CA Water Data Challenge [[project](#)] (\$1,500)
- **2018** Data Visualization & Digital Storytelling Runner Up, NASA [[project](#)] (\$1,400)
- **2018** Early Career Data Science Researcher Award, West Big Data Hub (\$1,000)
- **2016** NSF-GRFP Honorable Mention, National Science Foundation
- **2015** NSF-IGERT in Climate Change, Water, and Society, National Science Foundation (\$111,000)

## PUBLICATIONS IN PROGRESS

### *Journal Articles*

Pauloo, R., Z. Guo, G.E. Fogg 2019. "Groundwater Salinization Resulting from Open-to-Closed Basin Conversion in an Agricultural Basin." *Advances in Water Resources* (not yet submitted)

Pauloo, R., C. Henri, Z. Guo, G.E. Fogg 2019. "Upscaling Regional, 3D, Non-Fickian Solute Transport with 2D Equivalent Models." *Water Resources Research* (not yet submitted)

Pauloo, R., A. Escrivá-Bou, A. Fencl, H. Guillon 2019. "Domestic Well Vulnerability to Drought in California's Central Valley: Past and Future." *Regional Environmental Change* (not yet submitted)

## PRESENTATIONS

**2018. Pauloo, G.E. Fogg, R., Z. Guo, C.V. Henri** "Upscaling Regional, 3D, Non-Fickian Solute Transport with 2D Equivalent Models." American Geophysical Union. Final Paper Number H43I-2582. Washington, DC. 13 Dec.

**2018, Pauloo, R.** "An Interactive Mapping Interface to the California Online State Well Completion Report Database" UC Water Annual Meeting. Sacramento, CA. 25 Oct.

**2018, Pauloo, R., A. Escrivá-Bou, A. Fencl, H. Guillon** "Domestic Well Vulnerability to Drought in California's Central Valley" California Water Data Challenge Awards Summit. Los Angeles, CA. 18 Oct.

**2018. Pauloo, R., A. Escrivá-Bou, A. Fencl, H. Guillon** "Data-Driven Prediction of Domestic Well Failure in California, and Forecasting Future Well Failure with Machine Learning Models" CA Water Data Summit. Los Angeles, CA. 23 Sept.

**2018. Pauloo, R.** "Regional Groundwater Quantity and Quality Models" Stanford University. Palo Alto, CA. 24 May.

**2017. Pauloo, G.E. Fogg, R., Z. Guo, C.V. Henri** "Basin Scale Groundwater Quality Management Modeling: Methods to Upscale the Advection Dispersion Equation." American Geophysical Union. Final Paper Number H51G-1360. New Orleans, LA. 14 Dec.

**2017. Pauloo, R., G.E. Fogg, E. Goharian, J.D. Herman** "How to Maximize Total Water Storage in California." UC Water Annual Retreat. Davis, CA. 21–22 Sept.

**2016. Pauloo, R., G.E. Fogg, Z. Guo** "Water Resource Vulnerability to Groundwater Salinization in Closed Basin Aquifers." American Geophysical Union. Final Paper Number H33F-1610. San Francisco, CA. 14 Dec.

**2016. Pauloo, R., G.E. Fogg, Z. Guo** "Investigating Groundwater Sustainability and Water Quality Degradation in California's Tulare Basin using a Simple Mixing Model." Groundwater Resources Association Annual Meeting. Concord, CA. 28 Sept.

**2016. Pauloo, R., G.E. Fogg, Z. Guo** "Groundwater Salinization due to Hydraulic Closure in Tulare Basin over long time scales." Toward Sustainable Groundwater in Agriculture. Burlingame, CA. 28 June.

**2015. Pauloo, R., P. Marielle** "The Past Present and Future: Long-term climate trends and water management history in California." Water Scarcity in the West: Past Present and Future. Davis, CA. 12–13 April.

## **ORGANIZATION & LEADERSHIP**

**Team Lead, California Water Data Challenge, May - Oct. 2018** [Domestic Well Vulnerability to Drought in California's Central Valley](#)

**Session Co-Chair, American Geophysical Union, Dec. 2016.** [Integration of Climate, Hydrology, Social Science, and Water Management: Connecting Hydroclimate Models with Stakeholder Need](#)

**Conference Co-Organizer, April 2016.** [Weathering Change: Impact of Climate Change and SGMA on CA Water](#)

## **PROFESSIONAL AFFILIATIONS**

- American Geophysical Union
- Groundwater Resources Association
- International Association of Hydrogeologists

## **TRAINING**

### **ANALYSIS & SOFTWARE**

- Stanford ICME Summer School in Machine and Deep Learning, 2018.
- Software Carpentries Instructor, 2018.
- Eawag Summer School in Mathematical Modeling of Environmental Systems. Dubendorf, Switzerland. June, 2017.
- C2VSim training, San Luis Obispo, CA. April, 2016.

### **WATER**

- Contemporary Groundwater Issues Council. May, 2017.
- C2VSim training, San Luis Obispo, CA. April, 2016.
- Drought Tour, California Water Education Foundation, September, 2015.
- Groundwater Tour, California Water Education Foundation, September, 2015.

### **OTHER**

- First Responder (NOLS) - certification valid through June 2019.

## COMMUNICATION & OUTREACH

- [Personal webpage](#)

## LANGUAGES

- Spanish (conversational)
- Portuguese (elementary)

## REFERENCES

Available upon request