



Rich A. Pauloo

PhD Candidate, Physical Hydrology, UC Davis
740 Miller Drive · Davis · CA 95616

✉ rpauloo@ucdavis.edu  [richpauloo](https://github.com/richpauloo)  richpauloo.github.io | Updated: November 19, 2018

EDUCATION

University of California, Davis, *Ph.D. Hydrogeophysics* (March 2020)
University of California, Berkeley, *B.S. Biology & minor in Conflict Resolution* (2011)

EMPLOYMENT

University of California, Davis:

National Science Foundation Fellow in [Climate Change, Water, and Society](#) 2015–2017
Researcher for [U.S./China Clean Energy Research Center](#) 2015–present
Data Science Consultant at the [Data Science Initiative](#) 2017–present
Data Engineer & Developer for [UC Water](#) 2017–present
Hydrologic Sciences Graduate Group [Webmaster](#) 2017–present
Graduate Student Assembly Representative 2016–2018

National Geographic Student Expeditions:

Expedition Leader (Thailand) 2016

NatureBridge, Yosemite National Park & Golden Gate National Recreation Area:

Site Manager 2014–2015
Environmental Science Educator 2013–2014

San Mateo County Office of Education:

Environmental Science Educator 2012–2013

University of California, Davis:

Biological Science Technician 2012

GRANTS & AWARDS

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

- (**\$111,000**) *NSF-IGERT in Climate Change, Water, and Society*, National Science Foundation 2015

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. [[view presentation](#)]
- 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. [[view poster](#)]
- 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. [\[view poster\]](#)

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. Palo Alto, CA. 2018.
- Software Carpentries Instructor. Davis, CA. 2018.
- conf::RStudio. San Diego, CA. 2018.
- Eawag Summer School in Mathematical Modeling of Environmental Systems. Dubendorf, Switzerland. 2017.

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

- *various topics*, Personal Blog
- *Eastern San Joaquin Valley and other CA drinking water supplies at risk in the next drought*, California Water Blog

LANGUAGES

- Spanish (conversational)
- Portuguese (elementary)

REFERENCES

Available upon request