Vinicius Perin

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EDUCATION

Ph.D. in Geospatial Analytics   August 2019 - Current
North Carolina State University
Dissertation topic: Large-scale on-farm reservoirs monitoring using remote sensing techniques

Master of Science in Agronomy   May 2017 - May 2019
Kansas State University
Thesis: Ammonia volatilization from urea broadcast on winter wheat

Undergraduate Exchange   August 2015 - August 2016
Wageningen University and Research Centrum, The Netherlands
Tuition and fees fully sponsored by WUR and University of Sao Paulo partnership

Bachelor of Science in Agronomy   February 2012 - December 2016
University of Sao Paulo, Brazil
Thesis: Potential of sugarcane irrigation on northwestern Sao Paulo, Brazil.

RESEARCH EXPERIENCE

Ph.D. in Geospatial Analytics
North Carolina State University, Raleigh NC   August 2019 - Current
Graduate Research Assistant
- Experience with multiple satellite imagery including pre-processing and processing Landsat-8, Sentinel 1 and 2, and MODIS.
- Processing, downloading, and analyzing high-resolution Planet CubeSats and RapidEye imagery using Planet's Python Client API.
- Experience with surface water time-series analysis using Landsat Analysis Ready Data, Dynamic Surface Water Extent (USGS), and the Global Surface Water Extent.
- Time-series analysis of earth surface change using Google Earth Engine and machine learning algorithms.
- Course work focused on Remote sensing, Data Mining, Spatial Modeling, Geo-visualization and Geo-database management.

MSc Thesis
Kansas State University, Manhattan KS   May 2017 - May 2019
Graduate Research Assistant
- Coordinated the planning and execution of 11 field experiments. Activities ranged from planting to harvest winter wheat and deployment of meteorological stations.
- Responsible for creating a Python based function to manipulate, clean and analyze field experimental data.

- Comprehension of the Integrated Horizontal Flux (IHF) micrometeorological method combined with a passive sampler to measure gas fluxes.
- Course work focused on Agricultural meteorology, Remote Sensing and GIS, Statistics and Programming (Python).

PUBLICATIONS

Perin, V., Tulbure, M.G., Gaines, M.D., Reba, M.L., Yaeger, M.A., 2021. On-farm reservoir monitoring using Landsat inundation datasets. Agric. Water Manag. 246, 106694. https://doi.org/10.1016/j.agwat.2020.106694

Yoshizumi A, Coffer MM, Collins EL, Gaines MD, Gao X, Jones K, McGregor IR, McQuillan KA, **Perin V**, Tomkins LM, Worm T. A Review of Geospatial Content in IEEE Visualization Publications. 2020 Sep 7. arXiv preprint arXiv:2009.03390

Perin, V, Santos, EA, Lollato, R, Ruiz-Diaz, D, Kluitenberg, GJ. Impacts of ammonia volatilization from broadcast urea on winter wheat production. Agronomy Journal. 2020; 1– 15. https://doi.org/10.1002/agj2.20371

Lollato, RP, Bavia, GP, **Perin, V**, et al. Climate-risk assessment for winter wheat using long-term weather data. Agronomy Journal. 2020; 112: 2132– 2151. https://doi.org/10.1002/agj2.20168

Perin, V., Sentelhas, P.C., Dias, H.B., Santos, E.A., 2019. Sugarcane irrigation potential in Northwestern São Paulo, Brazil, by integrating Agrometeorological and GIS tools. Agric. Water Manag. 220. https://doi.org/10.1016/j.agwat.2019.04.012

PROFESSIONAL MEETINGS

Perin, V., Tulbure, M.G., Gaines, M.D., Reba, M.L., Yaeger, M.A., 2021. On-farm reservoir monitoring using Landsat inundation datasets. *AGU Fall meeting 2020*. Poster.
Perin, V., Santos, E.A., Lollato, R., and Ruiz-Diaz, D. 2018. Ammonia volatilization from urea broadcast on winter wheat. In: *33rd Conference on Agricultural and Forest Meteorology*. May 2018. Boise, ID. Poster.

RELEVANT SKILLS

Software: QGIS, ArcGIS, ENVI, Git
Programming languages: Python, R, JavaScript, SQL, and MATLAB
Languages: fluent English and native Portuguese
Cloud computing: Google Earth Engine

ACHIEVEMENTS AND AWARDS

-Outstanding Student Presentation Award. Poster Presentation. On-farm reservoir monitoring using Landsat inundation datasets. AGU Fall meeting 2021.

-Earth Surface Processes Institute (ESPIn), Summer School. 6-day immersive online python programming training. 2020.

-Mindvalley University - The Habit of Ferocity by Steven Kotler. Full quest granted via Scholarship Program. 2020.

-Poster Presentation Winner. College of Natural Resources at North Carolina State University. 2020.

-Scholarship Agronomy Department for distinguished graduate students. Kansas State University 2018.

-Travel Award scholarship. Kansas State University. 2018.

-Finalist Three Minutes Presentations. Kansas State University. 2018.

-Scholarship Agronomy Department for distinguished graduate students. Kansas State University. 2017.