Vincent Ricciardi, PhD

Senior Data Scientist

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EDUCATION

PhD in Resource Management & Environmental Studies, University of British Columbia — 2019

MSc in Geography, Pennsylvania State University — 2014

BA in Psychology, Kalamazoo College — 2009

SKILLS

Coding	R (11 years), Python (7 years), Bash/Unix (7 years)
Tools	Argo, Docker, ElasticSearch, Google Cloud Platform (GCP), Kubernetes, PySpark, SQL
Specialities	Machine Learning (ML), Natural Language Processing (NLP), Spatial and Inferential Statistics

EMPLOYMENT

Staff Data Scientist & Tech Lead for NLP and Surveys, Premise Data, Seattle, WA — 2022 – Present
Senior Data Scientist — 2020 – 2022

Data scientist for a global crowd-sourced survey platform.

Created NLP deep learning models and Argo workflows to recommend streaming news and social media
Created a suite of NLP models to processes streams of survey data, including "on-line" topic models
Built NLP models from embeddings with fine-tuning and few-shot learning to improve UX performance
Built time series models and Argo workflows to identify anomalies from millions of time series per day

Jr Data Scientist, World Bank, Washington, DC — 2019 – 2020

Data scientist for high-impact data communication publications and open-access datasets.

Lead author for chapter in [flagship report on big data](#) for public policy with nearly 1 million downloads
Lead environmental data scientist for data journalism and visualization project ([SDG Atlas](#))
Curated global [environmental indicator database](#) and coordinated with data partners for timely updates

PhD Student & Research Assistant, University of British Columbia, Vancouver, Canada — 2015 – 2019

10 publications in 4 years. 5 are in the top 5% of most discussed out of 14 million ranked on Altmetric.com.

Collaborations included:

Gates Foundation	Automated meta-analysis via deep learning and NLP on farmer poverty
United Nations FAO	Built mixed models to test UN's method to monitor food insecurity
CGIAR Big Data Platform	Created global map of water insecure farmers via machine learning at 10 km^2

Independent Consultant, Cambodia, Ghana, Thailand, Vietnam — 2010 – 2015

Led field research teams. Communicated project impacts to ministries and funders.

Clients included:

USAID, Nat. Sci. F., PSU	Led field survey data collection and statistical and geospatial analyses

Research Assistant, Cambridge, MA & State College, PA

Penn. State University	Combined NLP and spatial data to model disease outbreak in Ghana	2012 - 2014
MIT	Collated research material for several neuropsychology studies	2007

SELECTED PUBLICATIONS (Full list available in Google Scholar)

25+ academic publications with ~1000 citations
30+ conferences, workshops, and guest lecturer presentations

Ricciardi, V., et al. 2021. Higher yields and more biodiversity on smaller farms. Nature Sustainability, 1: 1-7.

Ricciardi, V., et al. 2021. A scoping review of research funding for small-scale farmers in water scarce regions. Nature Sustainability 3, 836-844.

Mehrabi, Z., **Ricciardi**, V., et al. The global digital divide in data-driven agriculture. 2021. Nature Sustainability, 4: 154-160.

Müller M.F., **Ricciardi,** V., et al. 2021. Impact of transnational land acquisitions on local food security and dietary diversity. Proceedings of the National Academy of Sciences, 118: e2020535118.

Ricciardi, V., et al. 2018. How much of our world's food do smallholders produce? Global Food Security, 17: 64-72.

Wu, J., **Ricciardi,** V., et al. 2015. Buruli Ulcer disease and its association with land cover in southwestern Ghana. PLoS Neglected tropical Diseases. 9:e0003840.