

Geraldine Klarenberg, PhD

I am a **Quantitative Data Scientist** with some qualitative data experience.

Professional Summary

I am passionate about any and all data; find them, make them usable, explore them, visualize them and analyze them. I have worked on a variety of datasets; spatial, satellite/remote sensing, survey, environmental, health-related. I approach every dataset and every project with excitement and curiosity. I love Exploratory Data Analysis (EDA) to summarize and better understand data, as well as statistical analyses and simulation model creation to answer important questions.

Specific Expertise

Data cleaning and wrangling, Exploratory data analysis, Data visualization, Descriptive statistics, Inferential statistics, Time series analysis - incl. signal decomposition and causality, Simulation (process) modeling, Uncertainty and sensitivity analysis, Spatial analyses, Supervised machine learning, Qualitative (survey) analysis.

Currently working on: Google Machine Learning Crash course, NVIDIA DLI: Accelerated Data Science with RAPIDS

Things I want to learn: Scrum project management, text analysis, more HTML and CSS, cloud computing (AWS or Azure).

Professional Experience

current
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2019

● **Lecturer Quantitative Data Science (faculty)**

University of Florida


 Gainesville, Florida (USA)

School of Forest, Fisheries and Geomatics Sciences.

- Design and teach undergraduate and graduate classes on programming, coding, open science and open data, data wrangling, reproducibility, simulation modeling, statistics and data visualization - using R, Python and git.
- Conduct workshops on similar topics for faculty and staff.
- Provide consulting services to students, staff and faculty on programming and statistics (methods, design, implementation).
- Mentor and advise graduate students.

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 @DinaKla

 [gklarenberg](https://github.com/gklarenberg)

Technical Skills

Statistics

R (incl Rmarkdown and some Shiny)

Python

git, GitHub, GitLab

Machine learning

SLURM job scripts

Unix

Languages: English, Dutch, French, German

Education

PhD, Agricultural and Biological Engineering with a certificate in Biological Systems Modeling,
University of Florida, Gainesville, Florida, USA (2017)

BSc and MSc, International Land and Water Management (hydrology and irrigation) with a 'minor' in Law and Governance,
Wageningen University,
Wageningen, The Netherlands (2004)

Passions

Exploring, family, fixing things, running, hiking, water (in any shape or form), cooking, nature.

2019
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2016

● Various research positions

University of Florida

📍 Gainesville, Florida (USA)

Post-doctoral Associate, (2018-2019)

Department of Wildlife Ecology and Conservation. - Development of a dynamic population abundance model (state-space model) in R. - Guide and mentor undergraduate and graduate students.

Post-doctoral researcher, (2017 - 2018)

Department of Agricultural and Biological Engineering. - Collection, organization, feature engineering and analysis of a range of agricultural indicators (environmental, economic, social, productivity and human condition indicators).

Biological Scientist II, (2016 - 2017)

- Development of a dynamic matrix population model, including MLE optimization
- Analysis of a long-term Florida horseshoe crab monitoring dataset, and the development of a dynamic occupancy model (aka a state-space model)

2016
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2015

● Statistician

Suwannee River Water Management District 📍 Live Oak, Florida (USA)

- Analysis of flow and water quality data for research and policy purposes
- Evaluation of, and assisting with, consultants' statistical analyses
- Contribute to database development and sampling designs
- Development of R code and scripts for data extraction, analysis, synthesis and presentation.

2015
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2012

● Graduate Research Assistant

University of Florida

📍 Gainesville, Florida (USA)

At the Department of Agricultural and Biological Engineering, part of the project "Global Sensitivity & Uncertainty Analysis for Evaluation of Ecological Resilience: Theoretical Debates over Infrastructure Impacts on Livelihoods & Forest Change".

- Development of a spatially explicit dataset on environmental variables and variables associated with infrastructure development.
- Statistical analyses: clustering, development of a state-space model (Dynamic Factor Analysis) and non-linear time series analyses.
- Write reports, prepare and give presentations.

2011
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2010

● Consultant

Self-employed

📍 South Africa / USA

Research, analysis, information syntheses and report development for various clients (government, universities, non-profits) on Integrated Water Resources Management, water supply and sanitation services, climate change adaption, etc. Contributed technical and public participation expertise.

2010
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2005

● Program manager / Policy Specialist

The Mvula Trust (NGO)

📍 Johannesburg, South Africa

- Policy analysis and strategic document development (water provision, water resources management, rainwater management, multiple use of water)
- Project and program management (subcontractor management, budgeting, tendering, proposal and progress report writing) on behalf of the South African government.



Service

- current
|
2020

●

R-Users Group Gainesville
 Organizer 📍 Gainesville, Florida (USA)
 We organize workshops, talks, tutorials and social activities for users of the programming language R.
- current
|
2018

●

R-Ladies Gainesville
 Co-founder and organizer 📍 Gainesville, Florida (USA)
 R-Ladies is a worldwide organization whose mission it is to promote gender diversity in the R community. As the local chapter, we organize monthly meetings, workshops and socializing events.
- 2019
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2018

●

UF Carpentries Club
 Board member (treasurer) 📍 Gainesville, Florida (USA)
 I am also a Certified Data and Software Carpentry instructor since 2017, and still actively teach and help at UF Carpentries workshops on R and Python.
- 2018
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2014

●

American Society of Agricultural and Biological Engineers
 Various positions 📍 Florida/USA
 - Publicity chair for the Florida section (2017 - 2018)
 - Member-at-large (Graduate Student Relationships) of the Young Professionals Community (YPC) at national level (2014 - 2015)
- 2015
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2014

●

PhDMoms
 Co-president 📍 Gainesville, Florida (USA)
 I led a graduate student organization at the University of Florida that supports doctoral student-parents, with specific attention to female student-parents
- 2015
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2013

●

UF Agricultural and Biological Engineering Graduate Student Organization
 President 📍 Gainesville, Florida (USA)
 Organization of professional development and social activities for graduate students.
- current
|
2013

●

Science fair judging (middle schools)
 Judge 📍 Alachua county, Florida (USA)



GALLUP StrengthFinder Themes (2015)

- *Executing:*
- **1. Restorative** - "I love to solve problems."
- *Influencing:*
- **2. Communication** - "I like to explain, to describe, to host, to speak in public, and to write."
- *Relationship building:*
- **3. Harmony** - "I look for areas of agreement."
- **4. Connectedness** - "Things happen for a reason."
- **5. Adaptability** - "I live in the moment."