RUTH SCHMIDT, PHD

Data Scientist & Analyst

Technical Acumen | Statistics & Big Data | Data visualization | Reproducibility

8+ years of global experience managing, analysing, visualizing and sharing research data. Completed PhD in Microbial Ecology and have extensive experience in transdisciplinary research, data analysis, scientific writing, and project management. Skilled in exploring data and turning them into accessible information. Adept at communicating and presenting complex data concepts to scientific and non-scientific audiences. Managed six projects featuring staff with diverse backgrounds and skills.

💼 PROFESSIONAL EXPERIENCE

02/2021 | present

Data Scientist
Nextgem — 📍 Utrecht, The Netherlands
- Developing ML-based tool for financial economic crime (FEC) detection.
- Implemented marketing strategy for newly started company Fectfinder for FEC prevention.

10/2020 | present

Freelance Data/Policy Analyst
DataMoves — 📍 Utrecht, The Netherlands
- Developed benchmarking study for IFAD's (International Fund for Agricultural Development) biodiversity strategy.
- Created interactive visualizations of COVID-19 data for the Economics Observatory.
- Conducted multivariate analysis of biodiversity data for Louis Bolk Instituut.

01/2020 | 10/2020

Data Scientist
Plotly Technologies — 📍 Montréal, Canada
- Developed two brand-new open-source Dash apps for molecular data from microbiome research. These tools offered a way to integrate genetics-related big data in a visually informative way.
- Utilized company's Dash R and Dash Bio libraries to create the interactive applications within four months.
- Presented workflow and examples of Dash apps to the open-source community at the Bioconductor Conference 2020 (link to slides).

06/2019 | 10/2019

Environmental Consultant
IUCN — 📍 Remote
- Performed data analysis and report writing for IUCN's Common ground report on how soil and landscape biodiversity can benefit society and help overcome major challenges of climate change, biodiversity loss, and food and water insecurity.

🧬 ACADEMIC EXPERIENCE

01/2020 | 03/2020

Visiting Research Fellow
Kochi Core Center — 📍 Kochi, Japan
- Conducted bioinformatics data analysis.
- Recognized for effectively performing highly targeted genetic analysis.
- Developed a faster, less expensive, and more accurate method of detecting bacterial gaseous compounds under challenging environmental conditions (e.g., deep sea, drought).

CONTACT INFO

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⊙ github.com/ruthlys

KEY STRENGTHS

📊 Multivariate Statistics, Statistical Models, Machine Learning
🧬 Microbiome Research, Bioinformatic & Omic Tools
📍 Data Cleaning, Processing, Archiving, Mining & Manipulation
👤 Innovative, Intuitive, Creative, Curious, Goal/Solution-oriented, Empowering leader, Excellent multilingual communication skills, Knowledgeable collaborator, Decision maker, Organizer, Critical thinker

TECHNICAL SKILLS

💻 R programming, Python, SQL, CSS & HTML, Git/Github, Power BI, Plotly Dash and graphing libraries

LANGUAGES

German (Native)
English (Excellent)
Dutch (Intermediate)
Spanish (Advanced)
French (Beginner)

Postdoctoral Fellow

02/2018
|
12/2019

Institut national de la recherche scientifique (INRS) 📍 Montréal, Canada

· Led 3 lab and field studies with wheat under drought conditions.
· Conducted quantitative analysis of genetic-related big data.
· Collaborated with researchers in The Netherlands (Netherlands Institute of Ecology) and the UK (Plymouth Marine Laboratory) on studies.
· Co-supervised four PhD students and two master's degree students.
· Presented findings at six international conferences.

PhD Candidate

02/2013
|
10/2017

Wageningen University & Netherlands Institute of Ecology 📍 Wageningen, The Netherlands

· Utilized a combination of genetic, microbiological, and analytical approaches to characterize the molecular mechanisms involved in soil microbe interactions.
· Collaborated with five international research institutes and universities in the US (Institute for Genome Sciences, Baltimore); Germany (Greifswald, Jena & Center for Functional Genomics of Microbes, Max-Planck Institute for Chemical Ecology); and Sweden (Swedish University of Agricultural Sciences) on microbiomics projects.
· Mentored four undergraduate and one graduate student on molecular biology research projects.

University Assistant

10/2010-
12/2012

Graz University of Technology 📍 Graz, Austria

· Led and conducted field study on the effect of biocontrol agents in field in Egypt.
· Performed high-quality bioinformatics analysis of data.
· Oversaw three team members.

🎓 EDUCATION

PhD in Microbial Ecology

10/2017

Wageningen University & Netherlands Institute of Ecology (NIOO) 📍 Wageningen, The Netherlands

Master of Science in Biotechnology

12/2012

Graz University of Technology 📍 Graz, Austria

Bachelor of Science in Molecular Biology

09/2010

Graz University of Technology 📍 Graz, Austria