# David De Ridder, PhD

# Data Scientist with a focus on spatial data and digital health

Data Scientist with a PhD in Life Sciences, skilled in health systems, digital health, and epidemiology. I have a solid experience in leading projects turning complex data into clear insights for smart decision-making. Ready to shift from academic research to a broader industry role, I aim to use my skills to solve real-world problems and create significant strategies across different sectors. I'm drawn to roles that offer diverse challenges and the chance to make a meaningful impact through data.

### Professional Experience

### University of Geneva & EPFL | Geneva, CH

#### Senior Research Associate

2022.11 - Current

- · Conducting a large project evaluating traditional and alternative medicine's costeffectiveness using Swiss health insurance data.
- · Led a consulting project for the Fondation genevoise pour le dépistage du cancer to improve participation in the breast cancer screening program, facilitating a strategic reassessment of their future communication campaigns and recruitment.

#### Postdoctoral Fellow

2021.07 - 2022.10

- · Led a large COVID-19 project, underlining air pollution's role at detailed spatial scale, while offering insights into epidemic trends and diffusion dynamics.
- · Successfully secured funding (CHF 130,000) for a project evaluating integrative medicine's efficacy in collaboration with a large Swiss health insurance group.
- · Conducted a strategic mandate for the Direction Générale de la Cohésion Sociale of the Canton of Vaud, focusing on optimizing the adequation between demand and supplyin social services.

PhD candidate 2017.12 - 2021.06

- · Conducted multiple projects on the geospatial clustering of health risk factors and their determinants to enable targeted and informed public health interventions.
- · Led three COVID-19 projects, showcasing the potential of geospatial approaches in enhancing epidemiological surveillance (2 publications including one in The Lancet Digital Health, multiple press releases and TV coverage).
- · Key contributor in the decision-making and design process for the @choum project (CHF 250,000), a digital health app for COVID-19 symptom reporting and early outbreak detection (8,000+ downloads in Geneva, 1 publication).
- · Co-instructed the "Exploratory Spatial Data Analysis" graduate course to 40+ students at EPFL and instructed in multiple workshops, CAS and MAS, managing up to 80 students.
- · Led a consulting project for the Canton of Geneva's Health Department during the COVID-19 vaccination campaign, successfully identifying high-risk groups to enhance the DGS's vaccination strategy optimization.

### Réseau Delta | Geneva, CH

Data scientist 2019.02 - Current

- · Created innovative data feedback solutions to improve the quality and efficiency of healthcare practices for over 250,000 patients and 1,000 physicians.
- · Led the integration of GIS and spatial analyses into Réseau Delta's decision making.

# Harvard Medical School - Dana Farber Cancer Institute | Boston, MA, USA

### Bioinformatics technician (CCSB | Vidal Lab)

2016.03 - 2017.11

· Performed data analyses (protein network analyses, community detection, DNA sequencing,...) for the human interactome project "HuRI" (Nature, 2020) and yeast interactome project "YeRI".

### Graduate student researcher (CCSB | Vidal Lab)

2015.03 - 2015.09 SSPH+

· Thesis "Analysis of Interactome Perturbations Underlying Human Diseases". Identified 173 previously unknown human protein interactions involved in rare human diseases.

#### Education

PhD Life Sciences | University of Geneva, CH

2017 - 2021

### MEng Bioengineering | University of Liège, Belgium

· Mobility scholarships for study and research exchanges at Universitat Politècnica de

MIT (edX)

València and Harvard Medical School (total EUR 6000). BEng Bioengineering | Université Libre de Bruxelles, Belgium

Personal Interests

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Chêne-Bougeries, Switzerland

Personal info

Belgium (Work permit : C)

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#### Hard skills

- Research and study design
- Fund acquisition
- Scientific writing
- Remote sensing
- Spatial data science
- Data mining & visualization
- Causal inference
- Machine learning
- Clustering
- Network analyses
- Dashboards & webGIS

# Software & programming

Python • R • SQL • PostGIS • Git • QGIS • MS Office

#### Soft skills

- Project management
- Leadership
- Problem solving
- Public speaking
- Scientific Communication

## Languages

C2 French

C<sub>2</sub> English

Spanish **B1** 

Dutch Δ2

#### Certificates

2022

Certificate in Public health

2020 **HarvardX** Causal Inference & Diagrams

**Harvard Extension School 2016** 2013 - 2015 Entrepreneurship & Innovation

2016

Computer Science and 2010 - 2013 Programming using Python

> UCL (edX) 2016 Psychological Components of Negotiation

Triathlon, photography, rock climbing, trail running, skiing