



# Sereina M. Graber

PhD · Data Scientist · Researcher

Zurich, Switzerland

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*Creative & proactive data scientist with a strong interest in drivers and outcomes of drug usage, leveraging strong analytical and programming skills to generate actionable insights & innovative solutions that enhance patients well-being.*

## Experience

### Data Scientist & Researcher

90% | Aug 2019 - current

Department of Health Sciences, Helsana Ins. Group, Zurich

- Lead, conceptualize and execute scientific studies and analytical projects, e.g.:
  - Discrepancy between antibiotic pack sizes and guidelines ([link to study](#))
  - How insurance models affect inappropriate drug prescribing ([link to study](#))
- Development of automated processes to cleanse, aggregate and consolidate diverse "big data" sources (including SQL procedures and R software pkgs)
- Data analyses and statistical programming
  - data extraction and processing (using SQL and R)
  - development and validation of statistical/ machine learning models (a.o.: GLM, GLMM, GEE, RF, survival analyses)
  - visualizations (mainly using ggplot, plotly, shiny)
- Interpret/ present/ discuss results to/ with external/ internal stakeholders and collaborate on publishing scientific publications
- Supervision of PhD student and mentoring team members

### Data Scientist

100% | Aug 2017 - Jul 2019

Advanced Analytics, Sanitas Ins. Group, Zurich

- Lead, design and implementation of analytical projects: Data mining & preparation, analyses & machine learning, preparation of results and discussion with internal/external stakeholders, project examples:
  - Predictive models for forecasting churn probabilities
  - Development of a chatbot in the area of customer consulting using NLP and Machine Learning (in collaboration with external consultants)
  - Claim audit system: efficiency testing and further development of rules and regulations (including implementation of analysis tool in R shiny)
- In-house consulting and teaching of statistical and analytical skills

### Biostatistician

diverse projects | Mar 2012 - Jul 2016

Institute of Anesthesiology, University Hospital Zürich

Pneumology and Sleep Medicine, Cantonal Hospital Aarau

- Design, implementation of and consulting on statistics and data analyses for clinical trials/ scientific publications

## Academic Career

### Ph.D. in Evolutionary Biology

Aug 2013 - Jul 2017

Anthropological Institute and Museum, University of Zurich

### Master of Science - Biostatistics

Sept 2012 - May 2015

Epidemiology, Biostatistics and Prevention Institute, University of Zurich

### Master of Science - Biology

Sept 2010 - May 2012

Anthropological Institute and Museum, University of Zurich

### Bachelor of Science - Biology

Sept 2007 - May 2010

University of Zurich

## Extracurricular

Member of the organizing committee  
[Zurich R User Group!](#)

## Skills

|             |   |   |   |   |   |
|-------------|---|---|---|---|---|
| R           | ● | ● | ● | ● | ● |
| R Shiny     | ● | ● | ● | ● | ● |
| Quarto      | ● | ● | ● | ● | ● |
| Python      | ● | ● | ● | ● | ● |
| SQL         | ● | ● | ● | ● | ● |
| LaTeX       | ● | ● | ● | ● | ● |
| Git         | ● | ● | ● | ● | ● |
| Bash/ Shell | ● | ● | ● | ● | ● |
| SPSS        | ● | ● | ● | ● | ● |
| JMP         | ● | ● | ● | ● | ● |
| MS Office   | ● | ● | ● | ● | ● |

## Languages

|         |   |   |   |   |   |
|---------|---|---|---|---|---|
| German  | ● | ● | ● | ● | ● |
| English | ● | ● | ● | ● | ● |
| French  | ● | ● | ● | ● | ● |

## Personal Interests

Programming & visualizing for fun,  
hiking & cycling with my dog

## References

available upon request