

Functie	Junior Data Scientist / Missing Data Specialist
Naam	R.M.Schouten
Voornaam	Rianne
Geboren	11/05/1991
Geslacht	Vrouw
Woonplaats	Utrecht
Website	https://rianneschouten.github.io



Motivation

When you get to know me, you will recognize an enthusiastic and motivated person who is always eager to learn. I have an open and direct personality, and some self-deprecating humor. Working with me never becomes boring, since I continuously make new plans or I will make some weird but funny statements. First and foremost, I intent to deliver work with a more than good quality.

Education

04/2017 – current

Excellence Program for Data Science – BigData Republic

1 day a week training by Senior Data Scientists from BigData Republic

The goal is to add business value by applying my skills in the field of data science (feature engineering, classification, regression, complex models). Key here is communication, understanding where data science can help business, and reporting project outcomes. Second is to learn and keep up to date with the latest techniques and expanding my knowledge in the Excellence Program for Data Science during my traineeship.

- **Core IT skills:** Asana, Python, Linux basics, Code versioning & sharing in GIT, Virtual machines, SQL
- **Core data science skills:** Data science pipeline, Statistics, Multiple linear regression, Clustering, Feature engineering, Feature space visualisation
- **Toepassen van data science op use cases:** Hands on categorization, Hands on clustering, Hands on regression, Hands on Kaggle
- **Advanced data science skills:** Ensemble, Neural networks, Evolutionary algorithms
- **Toepassen van advanced data science op use cases:** Hands on Kaggle, Custom assignment
- **Consulting skills:** translating the business requirements to data science strategic innovation

More info: www.dpadatascience.nl

09/2014 – 05/2017

Research Master Methodology and Statistics for the Behavioural, Biomedical and Social Sciences, Utrecht University

Master of Science (MSc), GPA: 4.0

This research master's programme focuses on the methodological and statistical aspects of social and biomedical research. I am learning in depth knowledge about a multiple of statistical analyses, their assumptions and applications. I especially enjoy to dig deeper into the mathematical background of the analyses and how we can use computer techniques to gain the information we desire.

- 09/2013 – 08/2014 **Preparatory Programme Social Policy and Social Interventions, University of Utrecht**
Complete 30 ECTS
- 02/2013 – 06/2013 **Preparatory Programme Social Sciences, University of Amsterdam**
Complete 30 ECTS
- 09/2009 – 08/2012 **Bachelor Medicine, University of Utrecht**
Bachelor of Science (BSc), GPA: 3.24

Research

- 01/2016 - current **Department of Methodology and Statistics, University of Utrecht**
PhD Student Missing Data Research
The occurrence of missing data is a ubiquitous problem in all sorts of data analysis. Therefore, we develop missing data methodologies such as (multiple) imputation techniques. My research focuses on the evaluation of these missing data methods.
- First, I developed a multivariate amputation procedure, which I implemented in statistical software R. Amputation function 'ampute' is available in R-package **mice**, and enables the generation of missing values in multiple variables, based on the values of multiple variables, with any desired missingness percentage and much more.
- With the availability of 'ampute', it is now possible to perform extensive simulation studies to test the performance of missing data methods. I especially focus on how to use missing data methods in the data science framework and what to do with nonignorable missing data problems. A research proposal and an overview of my research activities can be found on <https://rianneschouten.github.io>
- 11/2016 - 12/2016 **Department of Statistics, Columbia University in the City of New York**
Staff Associate
For a two month period, I assisted dr. Gerko Vink with his research in the field of missing data. My work at Columbia University was quite divers, ranging from reviewing literature to developing R-code and running simulations. My cooperation with dr. Gerko Vink resulted in some nice insights which we will publish any moment. Dr. Gerko Vink performs his research in cooperation with Prof. Andrew Gelman.
- 09/2015 – 12/2015 **Dutch Institute for Space Research (SRON)**
Internship Material Science, Grade: 9.0
The Use of Principle Component Analysis in Analyzing Fe-55 X-Ray Pulses
The technique of PCA is considered to function better than the traditional method of matched filtering. By means of a simulation study and by digging into an experimental data set, I obtained information about the possibilities of using PCA in analysing X-ray data. My work resulted in a SPIE conference paper:
- de Vries, C. P., Schouten, R. M., van der Kuur, J., Gottardi, L., & Akamatsu, H. (2016, July). Microcalorimeter pulse analysis by means of principle component decomposition. In *SPIE Astronomical Telescopes+ Instrumentation* (pp. 99055I-99055I). International Society for Optics and Photonics.

Software tools

R (incl. Rmarkdown, Shiny)
>3 years

Python (incl. Bokeh)
1 year

LateX (incl. TikZ)
2 years

SPSS
>3 years

Other statistical software
>2 years

Work experience

- 09/2014 – 05/2017 **Self-employed statistical consultant for WO-students**
Many bachelor's, master's and doctoral students have difficulties with performing their statistical analyses. I functioned as an adviser, a teacher, a guide or as a co-author for many students.
- 01/2012 – 05/2012 **Teaching assistant University of Utrecht**
Courses:
Survey Research: Design, implementation and data processing
Survey Research: Statistical analysis and estimation
Introduction to research methods and statistics for social scientists'
As a student teacher, I am responsible for two things. First, I take care of the practical organization of the courses, that means, I arrange the materials, I answer questions of students, I analyse the student evaluations and I am just around. Second, I assist during lab meetings, I make sure students understand the analyses and are able to perform them correctly. Especially the second part of my tasks gives me joy and gratification.
- 09/2012 – 02/2013 **Blood sampling and collecting at Saltro Diagnostics Center**
Driving to patients' homes, sampling the necessary blood and making sure everything is in the lab at the right time was a nice and pleasant job in between two periods of schooling.

Talenkennis

Taal	Woord	Schrift
Engels Nederlands	vloeiend moedertaal	vloeiend moedertaal