



Robert Koch-Institut | Abteilung 3 Infektionsepidemiologie | Signale / FG31 | Seestraße 10, 13353 Berlin

The Robert Koch Institute is hiring a

Research Assistant in Data Science

(Machine Learning and Web Applications)

The Robert Koch Institute is Germany's public health institute. The mission is to protect and improve the health of the population. To this end, 1,100 individuals from 90 different occupational fields work and conduct research together at RKI every day. The RKI investigates disease and health on all levels: from viruses in human cells to obesity in the population. RKI's scientists collect data on non-communicable diseases like diabetes and cancer, on infectious diseases and (new) biological dangers. On this basis, policy recommendations and preventive strategies are developed.

The RKI is a partner in the ESEG project (Erkennung und Sicherung epidemischer Gefahrenlagen), supported by the Gemeinsamen Bundesausschuss. It will investigate the usefulness of emergency-department records as complement to the traditional infectious-disease surveillance.

The Signale team of Unit 31 Infectious-Disease Data Science will develop a dashboard (as a website) and automatically generated reports. Statistical algorithms will be developed and implemented, that can identify within seconds possible events (signals) such as outbreaks. The signals will be presented in epidemiological context.

Your tasks in our group:

- Development of a website that visualises, in interactive graphics, the data collected in this project as well as the results of analyses and simulations
- Development and Implementation of statistical and machine-learning methods for the outbreak detection, in collaboration with the Knowledge Engineering group of the TU Darmstadt
- Identification and statistical description of relevant data sources
- Conception and implementation of simple simulations

Your profile:

- M.Sc., M.Eng. or Uni-Diplom in Informatics, Mathematics, Natural Sciences or a similar domain
- One year experience or more in Data Science, preferably in many-persons projects, or an advanced applied project during studies
- Professional experience with many machine-learning methods (e.g. logistic regression, clustering, random forest, support vector machines)

Application online at:

<https://www.interamt.de/koop/app/stelle?id=459744>

Deadline: 19 August 2018

Salary scale: TVöD-Bund E14
+ Bonus conditional on qualification (IT-Fachkräftezulage)

Fixed term until 30.06.2021

Location: Berlin, Seestraße

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www.rki.de/signale-project

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- Programming experience with object-oriented as well as functional languages (preferably R or Python)
- Practical experience with scientific programming
- Programming experience with ML-specific languages or packages (e.g. TensorFlow, Julia) as well as with JavaScript
- Experience with distributed computing
- Knowledge of German sufficient for simple conversations (equivalent to CEFR level B2)

Your advantages at RKI:

The RKI values the dedication of its employees and supports them with many benefits, among other things:

- flexible working hours
- extensive offers for training and qualification
- 30 vacation days (by full-time employment)

The compatibility of private and professional lives as well as equal opportunity for all are firmly established components of our staffing policy. At same qualification people with serious disabilities are considered preferably.

We are looking forward to hearing from you!