

# Marcel Gehrke

DATA SCIENTIST

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## Personal Profile

### quatsch

A motivated and responsible young professional seeking a Ph.D. position within the RTG 'Regional Disparities & Economic Policy', which allows him to combine the joy for data analysis and the hands-on experience he gained in private sector with his passion for society related, evidence based science. Able to take responsibility and deliver results - which are reproducible and comprehensibly to others - by himself and also a well familiar team player.

## Relevant Work Experience

### ARAG SE

Düsseldorf, Germany

DATA SCIENTIST

Apr. 2018 - Present

- Providing data-driven and evidence based solutions to organization-wide problems using state of the art algorithms and modelling techniques.
- Taking responsibility for whole project lifecycles.
- Reporting results and recommendations for actions via presentations, interactive html-documents and web-applications.
- Important internal clients are board members, sales strategy executives as well as the product development department.

### Deloitte

Düsseldorf, Germany

DATA ANALYST

Oct. 2017 - Apr. 2018

- Member of a highly interdisciplinary and international project team inside the 'Segregation of Duties' Division of one of Europe's biggest banks.
- Focus on conveying between IT and business stakeholders around the world to ensure the fulfillment of regulatory requirements.

### Institute for Advanced Studies in the Humanities (KWI)

Essen, Germany

RESEARCH ANALYST

Oct. 2016 - Jun. 2017

- Research within the project 'FinShare' ('Citizen Participation within the Share Economy using the example of financial markets', funded by the German Ministry of Justice and Consumer Protection.
- Supporting the organization of the projects closing conference.
- Accompanying expert interviews.
- Collaborative writing of the proposal for a follow up project.

### GESIS – Leibniz Institute for the Social Sciences

Cologne, Germany

STUDENT ASSISTANT

Feb. 2016 - Feb. 2017

- Assisting the team 'Data Linking and Data Security', including the Secure Data Center.
- Supporting research projects regarding: ubiquitous computing, georeferencing of survey data and the Qualitative Election Study of Britain.

### Innofact AG

Düsseldorf, Germany

INTERNSHIP

Mar. 2015 - May 2015

- Supporting the online market research institute conducting quantitative analyses and reporting them to clients.

## Education

### University of Duisburg-Essen

Duisburg, Germany

MASTER OF ARTS IN SOCIOLOGY (HONS)

Oct. 2015 - Oct. 2017

- Major subject: advanced empirical social research.
- Thesis: 'Statistics 4.0? The potential use of new classification algorithms for empirical social research.'
- Research Internship within a project dealing with the longitudinal simulation of third generations migrants job prestige by using dynamic microsimulations.
- Relevant courses: multivariate data analytics, longitudinal data analytics, advanced regression analysis, research theory, models with latent variables, Machine Learning with R, network analysis, survey design, English for sociologists.

### University of Duisburg-Essen

Duisburg, Germany

BACHELOR OF ARTS IN SOCIOLOGY

Oct. 2011 - Oct. 2015

- Major subject: advanced methods in social research.
- Thesis: 'Anti-Muslim Racism - A New Phenomenon?'
- Relevant courses: communication of research results in public, social structure analysis, quantitative and qualitative research methods, statistics.

# Academic Experience

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## TALKS

### Digitization, Data Analytics & New Work: A playground for Sociologists?

Nov. 2018

DUISBURG CAREER DAYS FOR SOCIOLOGISTS, UNIVERSITY OF DUISBURG-ESSEN

### Crowdfunding, Intermediaries and Responsible Consumers: Towards a Sociological Analysis of Digital Financial Markets.

Jul. 2017

SOCIOLOGICAL COLLOQUIUM, UNIVERSITY OF DUISBURG-ESSEN, WITH PROJECT LEAD AND KWI-FELLOW PATRICK LINNEBACH

## PAPER

### Anti-Muslim Racism – A New Phenomenon?

Apr. 2017

DUISBURGER BEITRÄGE ZUR SOZIOLOGISCHEN FORSCHUNG, DOI: 10.6104/DBSF-2017-02

## TEACHING

### University of Duisburg-Essen

Essen, Germany

TUTOR AND ASSIGNMENT CORRECTION – LECTURE: 'STATISTICS AND METHODOLOGY OF THE SOCIAL SCIENCES'.

Apr. 2017 - Jul. 2017

### University of Duisburg-Essen

Duisburg, Germany

TUTOR AND EXAM CORRECTION – LECTURE: 'FOUNDATIONS OF SOCIOLOGY'.

Oct. 2015 - Jan. 2016

# Tools

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## R

STATISTICAL PROGRAMMING LANGUAGE

- Able to use R for the whole data analytics lifecycle: procuring data, parsing, cleaning, analyzing, reporting.
- Extensive knowledge of widely used packages and frameworks e.g. caret, mlr3, ggplot2, tidyverse, markdown.
- Experience in parametric and non-parametric modelling with R.
- Build tailor-made dashboards and shiny applications.

## Git (Github & Bitbucket)

VERSIONS CONTROL SYSTEM

- Git allows its users to track changes in source code, datasets and other files to support collaborative work among multiple people.

## SQL

DATABASE LANGUAGE

- Experience in using SQL to extract data from Postgres and Microsoft SQL databases.

## Python

PROGRAMMING LANGUAGE

- Basic knowledge of using Python for the data science lifecycle (see R), as well as building neural networks.

## STATA

STATISTICAL SOFTWARE

- Calculating random- and mixed-effects models at university.

## LISREL

STATISTICAL SOFTWARE

- Structural-Equation-Modelling.

## SPSS

STATISTICAL SOFTWARE

- Descriptive data analysis, data cleaning, regression modelling.

## Other

TOOLS USED IN VARIOUS CONTEXTS

- HP ALM - Application Development and Testing
- Typo 3 - Content Management System
- Microsoft Office Tools - e.g. Excel, Word, PowerPoint and SharePoint

# Trainings, Conferences and other

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## Planning and starting projects in a purposeful manner.

Jan. 2020

TWO-DAY COMPANY-INTERNAL COURSE

- Dealing with the conceptual foundations which are important to the successful execution of projects.

## Masterplan: Foundations of Digitization

Dec. 2019 - Jan. 2020

ABOUT 12 HOURS INTERACTIVE LEARNING

- Self-paced online courses on various topics.

## Winning the Mercedes-Benz #MoveSafety Hackathon.

Dec. 2019

TWO-DAY HACKATHON IN POTSDAM, GERMANY

- Together with a colleague from ARAG and students of the Potsdam based XU University, a clickdummy, which adapts the concept of providing safe walks home for vulnerable people was developed with the help of Design Thinking methods. The following pitch was won against three competitors (T-Systems, Daimler- and Mercedes-Benz Incubators).

## Solvency II

Dec. 2019

E-LEARNING

- Extensive European insurance regulation law.

## Open-Data-Science-Conference

Nov. 2019

THREE CONFERENCE DAYS IN LONDON

- Attending talks and workshops to learn about and apply state of the art data analytics methods, model explainability and ethics in AI.

## Insurance in Action

Nov. 2019

TWO-DAY COMPANY-INTERNAL WORKSHOP

- Dealing with the foundations of insurance specific topics like regulation, pricing and reserving.

## How insurers can make intelligent use of their data (advanced course)

Oct. 2018

TWO-DAY AT THE ACADEMY OF SCIENCE, ECONOMICS AND TECHNOLOGY, UNIVERSITY OF ULM, GERMANY

- Workshop about advanced machine learning methods used in insurance contexts.

# Scholarship

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## Scholarship of the German Ministry for Education and Research

Oct. 2016 - Oct. 2017

GRANTED FOR HIGH-ACHIEVING AND COMMITTED STUDENTS.

# Community Service and Schooling

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## St. Vinzenz Hospital for Mental Health

Rhede, Germany

COMMUNITY SERVICE

Aug. 2010 - Mar. 2011

## Euregio Gymnasium

Bocholt, Germany

ABITUR

Aug. 2001 - Jul. 2010