



## From Bits to Big Data

Training in Research Data Management and Data Science





Data Train
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and Data Science

## Data Train speakers

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Data Train is a joint program of the members of the U Bremen Research Alliance and co-financed by the Federal State of Bremen. "Data is the currency of the 21st century.

We need to invest this currency better to manage and grow our wealth of knowledge."

> Dr. Arjun Chennu Data Train lecturer

Group Leader "Data Science and Technology" Leibniz Centre for Tropical Marine Research (ZMT)

# Welcome to Data Train

Dealing with data and innovative technologies are key competencies of our time. Currently, we are facing a shortage of people with trained data competencies in labor markets worldwide. To meet the massive demand in science and economy, the cross-discipline training program "Data Train-Training in Research Data Management and Data Science" of the "U Bremen Research Alliance" teaches competencies in data literacy, research data management, and data science for doctoral researchers. The program is associated with the German National Research Data Infrastructure (NFDI) initiative.

#### Improve your data skills

A team of enthusiastic lecturers from member institutions of the U Bremen Research Alliance voluntarily created our common curriculum.

The training provided by our member institutions is targeted at doctoral researchers and open to all interested in strengthening their data skills, if capacities are available.

Doctoral researchers can complete the tracks in their entirety or attend only individual lectures. We confirm participation in lectures after completion of the respective track (by a 'Certificate of Participation'). Please find further information on our Data Train website.

The Data Train program offers a flexible and cross-disciplinary curriculum, with lectures tailored towards the participants' prior knowledge and interests. The three tracks are:

## STARTER TRACK

In the 'Starter Track', thematic overview lectures provide a general knowledge of important topics in data literacy, research data management, and data science. This track is intended for anyone who wants to get started in research data management and data science.

#### OPERATOR TRACK 'DATA STEWARD'

In the Operator Track 'Data Steward', essential competencies for the efficient handling of data in accordance with the "FAIR data principles" (data should be findable, accessible, interoperable and reusable) are taught. FAIR data form the basis for sustainable and future-oriented research that exploits its potentials. The track includes handson workshops on programming languages, versioning, data management plans, reproducibility, data preparation, data provisioning, and database skills.

#### OPERATOR TRACK 'DATA SCIENTIST'

Data science is concerned with extracting information and gaining knowledge from data using computational analysis methods such as statistical techniques, but also artificial intelligence (e.g. machine learning). In the Operator Track 'Data Scientist' participants learn methods from mathematics, statistics, artificial intelligence and computer science for data analysis as well as data visualization skills.

Please register via our Website www.uni-bremen.de/data-train

#### Join our Data Stories

Data Stories are inspiring stories about data handling, data management and data science in the private sector and in academia. The invited speakers shed light on the importance of data skills with regard to their respective fields of work and discuss current challenges.

The presentations are complemented by a joint discussion. Whenever possible, the events end with an opportunity to network and socialize with colleagues from other disciplines and the "storytellers" over seasonal snacks and drinks.

The Data Stories are open for everyone and designed to inspire for data skills, learn about new application areas, and develop ideas for the own research.

WISDOM
KNOWLEDGE
INFORMATION

DATA