

# Data Challenges 2019!



Frankfurt Big Data Lab  
-understanding and applying technologies for Big Data-

BearingPoint®

[www.bearingpoint.com](http://www.bearingpoint.com)

# Data Challenges 2019

(Web Business)

DC, M-DS-ADS, B-WB, M-WB, PoE, M-SIW-I1A, M-SIW-I1B

## Time and Location:

Wednesday 12:00 – 14:00 [Hörsaaltrakt Bockenheim – H V](#)

Thursday 14:00 – 16:00 [Hörsaaltrakt Bockenheim – H III](#)

**Language:** English and German

**Credit Points:** 6 CPs.

**Extras:** Certificate and Prizes for the winners.

Link in [QIS/LFS](#)

### People



**Prof. Dott. Ing. Roberto V. Zicari**  
Professor,  
DBIS, Goethe University Frankfurt  
Goethe University Frankfurt



**Dr. Karsten Tolle**  
Senior Researcher, DBIS  
(Lab Director)  
Goethe University Frankfurt



**Dr. Todor Ivanov**  
Senior Researcher, DBIS  
(Lab CTO)  
Goethe University Frankfurt



**Timo Eichhorn**  
PhD Student  
DBIS, Goethe University Frankfurt



**Naveed Mushtaq**  
IT & Media Manager  
DBIS, Goethe University  
Frankfurt

# OVERVIEW

Students will take part in one of two Data Challenges of BearingPoint

- 1. Mobility Service E-Scooter – station-based rental service for electronic scooters**
- 2. Online shoe return – online shoe retailer wants to investigate return rate drivers**

## **Phase 1 (27.11.2019):**

Presentation of the project idea (Pitch).

## **Phase 2 (12.02.2020):**

Teams that are selected for Phase II will have to implement their idea and present it middle of February 2020.

## **Mobility Service E-Scooter – station-based rental service for electronic scooters**

To expand the business, the company wants to identify the main business drivers to develop a growth strategy. Therefore it wants to analyze the data usage in order to identify various patterns within the data and derive strategic initiatives to increase revenue and reduce operating cost. Data set is available; high complexity.

## **Online shoe return – online shoe retailer wants to investigate return rate drivers**

The retailer current return rate of all orders is a major influencing factor for profitability. Ways to decrease the return rate must be identified by clustering the customer base into segments and label those, by analyzing product configurations for which return rates are high and by building a predictive model to evaluate the probability of a product being returned. Data set is available; students must investigate into some data preparation; medium complexity.

# YOUR BENEFITS

- ✓ **CPs (if you pass Phase II)**
- ✓ Experiences in real domain challenges with current innovative tools
- ✓ A **certificate** for all passing the course
- ✓ **Prices** for those teams ranked under the first three for each challenge

# Who can participate?

**Eligibility:** Bachelor Students, Master Students, and PhD students across multiple disciplines are encouraged to attend the kickoff and to sign up for one Data Challenge.

Students in Computer Science, Data Science, Information Systems, Business Computer Science, Mathematics, Economics, Marketing, Psychology, and other disciplines will form teams of two to explore the questions posed. Team members are required to attend the kick-off lecture to sign-up for this project.

**It is highly recommended that participants do have basic knowledge in Machine Learning!**



# Who is in the room?

- Students: Bachelor?, Master?, PhD?, other?
- Study program: Computer Science, Data Science, Information Systems, Business Computer Science, Mathematics, Economics, Marketing, Psychology, and other disciplines
- What level of expertise do you have on the following topics:  
Business Models, Entrepreneurship, Marketing, etc.  
  
Data Analytics, Machine Learning, Databases, AI, Software Development, etc.

# Participants and teams ...

Students that are not yet registered: Please fill the paper form now!

Students that are not in a team yet: We reserved some time at the end of the kick-off to set up teams. In case you do not find a team-member, we will assign a partner to you.

Each team needs to sign a data agreement form in order to be able to receive the data!

Teams that have not indicated the challenge they want to work on (Shoes or E-Scooter) should indicate it by the end of the kick-off.

In case a team wants to change the challenge later they should send a change request to [dc@dbis.cs.uni-frankfurt.de](mailto:dc@dbis.cs.uni-frankfurt.de) latest by 31th of October. We will reply if this request can be granted or not.

## Challenge Prizes:

1. Visit to the [Hypercube/BearingPoint](#) office in Paris including hotel and 2<sup>nd</sup> Class train ticket
2. Visit to the [Wayra](#) office in Munich including hotel, 2<sup>nd</sup> Class train ticket and dinner at Wayra office event
3. Zalando or Jochen Schweizer voucher (in value of 80 €)



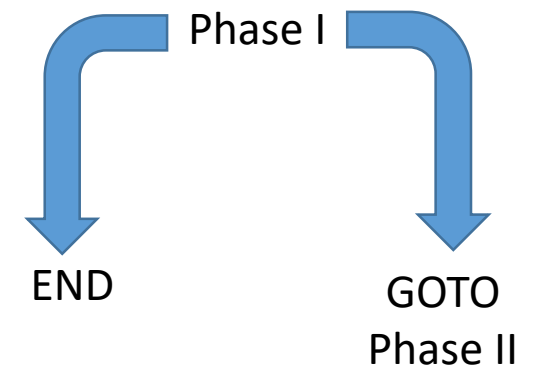
# EXPECTED CONTENT

## **PRESENTATION / Elevator Pitch (5 – 10 Minutes)**

- 1. Team introduction**
- 2. Problem to be solved**
- 3. Proposed solution**

# PHASE I – EVALUATION CRITERIA

- 1. Innovativeness of the idea**
- 2. Grade of usability:** If the idea proposed solves a real need.
- 3. How do you plan to use data to accomplish the goal:**  
The right use of the available datasets.
- 4. Verification strategy of your idea:** How do you plan to test and verify your idea in phase 2?





Phase I Presentations: 27.11.2019

Final Presentations – Phase II: 12.02.2020

# Useful resources ...

<http://www.bigdata.uni-frankfurt.de/data-challenges-ws-20192020/>

## Headlines:

UC Berkeley DATA-resources

Mobility

Ethics and Data

Legal Implications of Data

Data Privacy

Elevator Pitch

Machine Learning

Open Source Tool

Advanced AI Tools

Making App

Chat Bot

Entrepreneurship

# Now ...

- Introduction to BearingPoint
- Overview of the two challenges

