Statistical Analytics of IoT data @ BMW

At the BMW Group, you will find a diverse and interesting range of tasks with the opportunity to work out solutions independently. You will support a highly motivated team in the pre-development of Lithium-Ion-Cells for Battery electric vehicles. In collaboration with the chair of Mathematical Statistics and Industrial applications at TU Dortmund University we are offering you a master’s thesis on the following topic:

**Task**

High-dimensional Statistical Methods for the Production of Lithium-Ion-Battery-Cells.

The production of battery cells is regarded as a complex process chain, which is characterized by unknown interactions that lead to quality fluctuations and product defects. The goal is to generate knowledge by applying suitable methods of statistics and data analytics in order to build up product and process expertise. For this purpose you will examine the data of the production of Lithium-Ion-Batteries to discover insights of the numerous but mostly unknown cause-effect-relationships. The work will focus on the application of high-dimensional statistical methods for non-linear and non-gaussian data and their adaption to the situation of missing data.

**Qualification and Experience**

- Statisticians / Mathematicians / Data Scientists with solid statistical background
- Good knowledge of R or Python
- Knowledge of graphical models, missing data or high-dimensional statistics are a plus
- Experience with building user interfaces are desirable but not necessary
- You are able to work independently and responsibly. You have very good organizational and communication skills. You are a team player, that is characterized by the courage to think outside the box.

**Start**

Starting: 1st of July 2021, Full-Time (6 months)

**Contact**

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