Research Assistant “Artificial intelligence in life science applications”
We are looking for a research assistant (m/f/d) with a Dipl.-Ing. (Univ.) or M.Sc. degree in Computer science, Mechanical engineering, Process Engineering, Mechatronics, Informatics or related field.

About us
As a globally renowned institute in the field of brewing, beverage, and grain technology, it is our aim to always be at the forefront of scientific research. The development, implementation, and provision of innovative, forward-looking technologies and concepts in these fields are essential core aspects of our work. We believe that excellent research and lateral thinking will create innovative ideas and solutions for tomorrow's industry.

What we offer
Creative freedom – knowledge development – industrial contacts – young and creative team

Research topic:
To implement an efficient control system within a chemical or biotechnological process, an adequate process model, which describes the relationship of the relevant in and outputs, represents a crucial presupposition. Often analytical approaches are not applicable in bioprocess engineering due to the lack of existing knowledge. Due to the capability of the artificial neural network (ANN) models in representing complex nonlinear processes, it became a popular tool for modeling, optimization, and control of different processes. However, the main challenges remain to interpret the network model and usage of the prior-knowledge to develop a reliable and generalized network model.

The aim of this research topic is to introduce a general design approach for the direct integration of prior knowledge into an ANN. On the other side, the black box of the ANN should be open to help to dig into the problems, which are not yet understood well. In the context of this research study, soft (ware) sensors for biotechnological processes are to be developed and tested in both industrial and academic environments.

Requirements
- You are enthusiastic about tasks of multivariate and statistically based process analysis
- Ability and interest in analytical, creative and interdisciplinary thinking
- High level of initiative and commitment
- Ability to work in a team and communication skills
- Good knowledge of python programming,
- Experience with deep learning methods and packages
- Completed university degree

This position is compensated in wages according to the German salary structure for public sector employees (TV-L).

Application
Please submit your electronic application as a single PDF file and include the reference “Artificial intelligence” in the subject line. For full consideration, apply no later than 01.04.2020 to:

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www.lbgt.wzw.tum.de

Note on data protection
As part of your application for a position at the Technical University of Munich (TUM), you transmit personal data. Please note our data protection information according to Art. 13 General Data Protection Regulation (GDPR) on the collection and processing of personal data in context with your application (see http://go.tum.de/554159). By submitting your application, you confirm that you have taken note of the TUM’s data protection information.