The research group **„spine imaging"** (Leader: PD Dr. Jan S. Kirschke) of the Department of **Diagnostic and Interventional Neuroradiology** (Director Prof. Dr. C. Zimmer) at the Technical University Munich offers a position as

Researcher / PhD-Student

in close collaboration with the **Image-Based Biomedical Modelling** group (Leader: Prof. Bjoern Menze) of the Chair for Computer Aided Medical Procedures & Augmented Reality, Faculty of Informatics, Technical University Munich. The position starts 1st of June 2016 earliest. It is funded by the European Research Council and part of a research project to predict surgical outcome in chronic back pain patients. (ERC-Starting-Grant iBack: http://www.neurokopfzentrum. med.tum.de/neuroradiologie/forschung_projekt_iback.html).

We are looking for:
A flexible and motivated individual with high scientific commitment, interested in the interface between informatics, biomechanics, neuroradiology and musculoskeletal imaging. Previous experience in medical image processing, with knowledge of clinical image data and matlab are beneficial.

Your tasks:
You will be working within an interdisciplinary research team composed of computer scientists, engineers and physicians with the common research aim to objectively determine the best surgical therapy for patients with chronic back pain.
You develop algorithms and workflows to segment and register clinical image data from MRI, CT and conventional radiographs. Using this multi-modal data, you will be simulating therapeutic changes such as an increase in muscle strength or a surgical stabilization. Together with your colleagues in the research group you will use this data to calculate forces within the spine and to correlate these with patients' clinical results.

Requirements:
• Above average degree (Diplom / Master) in the field of computer science or related studies in natural sciences and engineering
• Scientific, analytical, systematic and independent way of working
• Interest in interdisciplinary research in cooperation with other research institutions
• Ability to publish and present research results
• Willingness to support teaching and related tasks
• Very good knowledge of spoken and written English

The employment will be full-time with compensation according to TV-L at the Klinikum rechts der Isar. The position is limited to 3 years within the framework of the EU-funded project. Acceptance of a successfully submitted research grant application offers the possibility to extend the contract.
As part of the doctoral training you will be part of the TUM Graduate School which provides you with the opportunity to further develop your professional and interdisciplinary knowledge and skills.

TUM is committed to increasing the proportion of female staff members. Qualified women are therefore strongly encouraged to apply. Handicapped applicants will be preferred in case of equal suitability and qualification.

Please send your application including cover letter, curriculum vitae and copies of study certificates in electronic form as a single pdf with the subject "Application iBack" to:

PD Dr. Jan S. Kirschke, Abteilung für Neuroradiologie, TUM. E-Mail: jan.kirschke@tum.de
AND:
Prof. Dr. Bjoern Menze, Image-Based Biomedical Modelling Group, TUM. E-Mail: bjoern.menze@tum.de