The Technical University of Munich (TUM) is one of top world universities. It is committed to excellence in research and teaching, interdisciplinary education and the active promotion of promising young scientists. The university also forges strong links with companies and scientific institutions across the world. TUM was one of the first universities in Germany to be named a University of Excellence. Moreover, TUM regularly ranks among the best European universities in international rankings.

TUM School of Management is redesigning its teaching and research in the field of Business Administration at the TUM Campus in Heilbronn in the light of the digital transformation. This is an once-in-a-lifetime opportunity, a chance for us to bring together unique expertise in analytics, big data, AI, and digitalization. The TUM Campus Heilbronn is an open, flexible organization whose goal is to achieve excellence in research, teaching and impact.

**PhD Position in Operations & Analytics with application in healthcare digitalization (m/f/d)**

We are looking for one doctoral student in the field of operations & analytics in healthcare digitalization in the School of Management, TUM Campus in Heilbronn under the supervision of Prof. Dr. Jingui Xie. The candidate is expected to construct a theoretical framework which integrates predictive analytics (such as statistical estimation or deep learning) and prescriptive analytics (such as mathematical programming or control theory) using innovative ideas such as robust optimization, and apply the new methodology in analyzing healthcare data, e.g., the Covid-19 pandemic, to support decision makers.

**Our requirements:**

The ideal candidate should have a strong interest in analytics and digitalization in healthcare and a profound education in applied mathematics, e.g., one of the following areas:

- Mathematical programming, operations research, industrial engineering
- Advanced applied probability and statistics
- Advanced econometrics or theoretical computer science

As well as excellent programming skills and English language skills. You must have a master’s degree relevant to your intended PhD specialization and from a university/department with a strong international research reputation.

**Our offer:**

We offer a full-time position as academic staff for up to four years with the opportunity to pursue a doctoral degree. You get the prospect to create and teach knowledge about current issues within the framework of digitization. In addition, an excellent working atmosphere awaits you in a young and success-oriented team. You will have the opportunity to experience and shape exciting research projects. Payment will be based on the Collective Agreement for the Civil Service of the Länder (E13 TV-L). TUM strives to raise the proportion of women in its workforce and explicitly encourages applications from qualified women. Applications from disabled persons with essentially the same qualifications will be given preference.
Your application:

If you are interested in working in our team, please send your application together with a strong CV and supporting documentation to the Technical University of Munich, TUM School of Management, Ms. Selina Mögerle, Bildungscampus 9, 74076 Heilbronn or by email no later than September 15, 2020 at bewerbungen@wi.tum.de.

Your application should include:
- Cover Letter (One page including GPA, GPA ranking (X/XX), university ranking for all degrees; a list of core and related courses to the program as well their grades; IELTS/TOEFL/GRE scores; any other rewards and evidences).
- CV
- Degrees and transcripts
- IELTS/TOEFL/GRE scores
- Reference letters (One letter of recommendation sending from an international scholar who knows you well and the names and e-mail addresses of two further referees (university professors)
- Writing sample (optional)
- Research proposal (about 2 pages) motivating your specific interest in healthcare data analytics (optional)

Do not hesitate to contact Ms. Bai for any questions you may have at jie.bai.hn@tum.de.

If you apply in writing, we request that you submit only copies of official documents, as we cannot return your materials after completion of the application process.

As part of your application, you provide personal data to the Technical University of Munich (TUM). Please view our privacy policy on collecting and processing personal data in the course of the application process pursuant to Art. 13 of the General Data Protection Regulation of the European Union (GDPR) at https://portal.mytum.de/kompass/datenschutz/Bewerbung/. By submitting your application, you confirm to have read and understood the data protection information provided by TUM.

Find out more about us at www.tum.de.