Chair of Computational Solid Mechanics
TUM School of Engineering and Design
Technical University of Munich

HiWi (m/f/d) – Structural Opitimization & Computational Solid Mechanics

1 About us and the position

The Chair of Computational Solid Mechanics is seeking a motivated Student Assistant (m/f/d) to help with the creation of the content for the Structural Optimization 2 tutorials and support our ongoing and future research projects.

This position will provide you with the opportunity to deepen your knowledge in simulation and optimization technologies, improve research skills, and gain practical experience in research workflow

2 Student Profile

We are seeking a motivated master's student who possesses an interest in model order reduction, machine learning, and finite element methods in computational mechanics. The candidate should be able to work independently and maintain a systematic approach to their work. A fundamental understanding of finite elements and neural networks is required, and any prior experience with Python and AI is highly valued.

Required Qualifications

- Completed Bachelor's degree in Mechanical Engineering, Civil Engineering, or a related field
- Currently enrolled as a Master's student at TUM
- Strong programming skills, particularly in Python
- Experience with Jupyter Notebooks
- Ability to work independently and proactively
- Very good command of English (written and spoken)
- Strong interest in finite element methods (FEM), Optimization, and Surrogate Modeling.

Nice to Have Knowledge

- Git
- OpenRadioss
- Model Order Reduction
- PyTorch

3 Your Tasks

- Develop and maintain Jupyter Notebooks for the Structural Optimization 2 tutorials.
- Support ongoing and future research projects of the chair
- Assist with numerical simulations and data analysis

4 Employment details

- Starting date: October 2026
- Student assistant contract for 3 hours per week for 16 weeks.

5 Application

If you are interested in this project or have further questions, please email juan.vargas@tum.de with only your **CV** and **transcript of records**.

6 Supervision

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