TUM

Development of a model order reduction library for an Android-based FEM app

Project Characteristics

Modeling:	★☆☆☆☆
Mathematics:	★★★★☆
Programming:	★★★★★
Science:	★★★☆☆

Your Tasks:

The goal is to extend an Android-based FEM solver with various methods from the field of model order reduction for frequency response analysis.

- Optimize the existing FEM framework
- Implement different MOR techniques
- Represent the frequency response graphically
- Validate the results using a commercial FEM

Programming language: Java

You will learn:

- Object oriented programming with Java and the Android API
- Design patterns
- Model order reduction techniques
- Numerical linear algebra algorithms

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