Call for Bachelor Thesis
“Translating encoded neural network information to executable programming code”
(in English/German)

What is the topic?
In order to train a neural network, you typically need a huge amount of data and computing power which you may not have. The field of Transfer Learning tries to tackle this problem by re-using neural networks.

FAIRnets [1] is a search engine for neural networks developed at our institute based on FAIRnets Knowledge Graph. Its data base consists of GitHub repositories using the library Keras [2]. On top of this, we want to build a plugin to automatically execute a neural network which architecture is based on the information saved in the knowledge graph.

In this thesis, the idea is to develop a mapping to translate the encoded neural network information in executable programming code. This should be implemented into FAIRnets Search.

[1] https://km.aifb.kit.edu/services/fairnets/
[2] https://keras.io

Which prerequisites should you have?
• Interest in neural networks and machine learning
• Python can be beneficial

Contact:
Anna Nguyen
nguyen@kit.edu