

## Master's thesis (30 ECTS)

MT\_77

**Working Title**

Transfer learning applied to geotechnical datasets

**Project objectives**

Transfer learning is a machine learning method where a model developed for a task (e.g. on data from Tunnel A) is reused as the starting point for a model on a second task (on data from Tunnel B).

Literature research concerning transfer learning techniques and applications in geotechnics, acquiring programming skills with Python, applying techniques to e.g. TBM datasets, evaluation of the results and identification of the best practices for geotechnical datasets.

**Student has enthusiasm for**

machine learning applications for geotechnical purposes; programming

**Requirements on student**

Programming skills are necessary, but can be acquired during the thesis

**Start (earliest / latest)**

April 2021

**Project term (min. / max.)**

6 / 8 months

**Coop. with external institution**

no

**Possibility of remuneration**

no

**Contact person**

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PDF on  
tunnel.tugraz.at: