ML ANA LIT

TU Graz NAWI Graz GEOCENTER RMT

first published on:
12/04/2021

Master's thesis (30 ECTS)

MT_76

Working Title	Unbalanced geotechnical datasets & what to do about them
Project objectives	Unbalanced datasets are prevalent in geotechnical engineering. The challenge appears when machine learning algorithms try to identify rare cases (e.g. fault zones) in rather big datasets. Literature research concerning techniques to handle unbalanced datasets in ML, 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	Paul Unterlaß (unterlass@tugraz.at, +43 316 873 4227)

PDF on
tunnel.tugraz.at: