BACHELOR'S THESIS ASSIGNMENT

I. Personal and study details

Student's name: **Horych Tomáš**   Personal ID number: **484011**

Faculty / Institute: **Faculty of Electrical Engineering**

Department / Institute: **Department of Cybernetics**

Study program: **Open Informatics**

Specialisation: **Artificial Intelligence and Computer Science**

II. Bachelor's thesis details

Bachelor's thesis title in English:

Bias Detection in Czech News

Bachelor's thesis title in Czech:

Metody detekce vyváženosti zpravodajských textů

Guidelines:

1. Review the state-of-the-art methods of gender and media bias detection and mitigation related to machine learning algorithms for Natural Language Processing.
2. Construct Czech datasets using machine translation from available data (most likely English).
3. Analyze the qualities of the datasets.
4. Train NLP classifiers and compare the results to the original counterparts.
5. Evaluate the models on Czech news corpora supplied by the supervisor.

Bibliography / sources:

[1] Chen, Wei-Fan, et al. "Detecting media bias in news articles using gaussian bias distributions." arXiv preprint arXiv:2010.10649 (2020).
[2] Chen, Wei-Fan, et al. "Analyzing political bias and unfairness in news articles at different levels of granularity." arXiv preprint arXiv:2010.10652 (2020).
[3] Mehrabi, Ninareh, et al. "A survey on bias and fairness in machine learning." arXiv preprint arXiv:1908.09635 (2019).
[4] Blodgett, Su Lin, et al. "Language (technology) is power: A critical survey of" bias" in nlp." arXiv preprint arXiv:2005.14050 (2020).
[5] Jacob Devlin, Ming-Wei Chang, Kenton Lee, Kristina Toutanova: BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding. NAACL-HLT (1) 2019: 4171-4186.

Name and workplace of bachelor's thesis supervisor:

Ing. Jan Drchal, Ph.D.   Artificial Intelligence Center FEE

Name and workplace of second bachelor's thesis supervisor or consultant:

Date of bachelor's thesis assignment: **27.01.2022**   Deadline for bachelor thesis submission: _____

Assignment valid until: **30.09.2023**

_____   _____   _____
Ing. Jan Drchal, Ph.D.   prof. Ing. Tomáš Svoboda, Ph.D.   prof. Mgr. Petr Páta, Ph.D.
Supervisor's signature   Head of department's signature   Dean's signature

III. Assignment receipt

The student acknowledges that the bachelor's thesis is an individual work. The student must produce his thesis without the assistance of others, with the exception of provided consultations. Within the bachelor's thesis, the author must state the names of consultants and include a list of references.

_____._____
Date of assignment receipt

_____
Student's signature