

# BUILDING TRANSFORMER-BASED NATURAL LANGUAGE PROCESSING APPLICATIONS

January 5, 2022  
ONLINE

Applications for natural language processing (NLP) have exploded in the past decade. With the proliferation of AI assistants and organizations infusing their businesses with more interactive human-machine experiences, understanding how NLP techniques can be used to manipulate, analyze, and generate text-based data is essential. Modern techniques can capture the nuance, context, and sophistication of language just as humans do. And when designed correctly, developers can use these techniques to build powerful NLP applications that provide natural and seamless human-computer interactions within chatbots, AI voice agents, and more. Deep learning models have gained widespread popularity for NLP because of their ability to accurately generalize over a range of contexts and languages. Transformer-based models, such as Bidirectional Encoder Representations from Transformers (BERT), have revolutionized NLP offering accuracy comparable to human baselines on benchmarks like SQuAD for question-answer, entity recognition, intent recognition, sentiment analysis, and more.

In this workshop, you'll learn how to use Transformer-based natural language processing models for text classification tasks, such as categorizing documents. You'll also learn how to leverage Transformer-based models for named-entity recognition (NER) tasks and how to analyze various model features, constraints, and characteristics to determine which model is best suited for a particular use case based on metrics, domain specificity, and available resources.

This course is only offered to academia (see details below in section Capacity and Fees).

**Tutor: Georg Zitzlsberger**

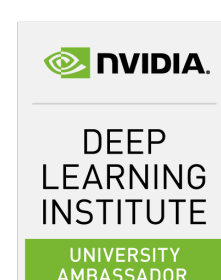
## Schedule:

08:45 - 09:00	Time to join the meeting
09:00 - 09:15	Introduction
09:15 - 12:00	Machine Learning in NLP with Hands-on
12:00 - 13:00	Lunch Break
13:00 - 14:45	Self-Supervision, BERT, and Beyond with Hands-on
14:45 - 15:00	Coffee Break
15:00 - 16:30	Production Deployment with Hands-on
16:30 - 17:00	Wrap Up and Assessment



More information & registration

[events.it4i.cz/event/129](https://events.it4i.cz/event/129)



This event is a PRACE Training Centre (PTC) course, co-funded by the Partnership of Advanced Computing in Europe (PRACE). The main web page of the course is located on the PRACE Events Portal.

This course is sponsored by NVIDIA as part of the NVIDIA Deep Learning Institute (DLI) University Ambassador program.

This event was partially supported by The Ministry of Education, Youth and Sports from the Large Infrastructures for Research, Experimental Development and Innovations project "e-Infrastruktura CZ - LM2018140" and partially by the PRACE-6IP project - the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823767.