NLP with Deep Learning and TensorFlow: Hackpack

September 13, 2021 / 7:00 PM - 8:30 PM ET

Description

Are you interested in teaching Machines how to learn? Are you fascinated by machines working with text data? Learn how to build a Named Entity Recognition system with TensorFlow! Python programming and basic machine learning concepts expected for this workshop.

Learning Outcomes

In this workshop, you will dive into Neural Networking and will learn:

- Deep Learning Concepts, including NLP neural networks and Optimization
- Deep Learning with TensorFlow
- Transformers and Transfer Learning with HuggingFace

Prerequisite Knowledge

In order to get the most out of this workshop you should be comfortable with the following concepts:

- Python Programming, including Object Oriented Programming (OOP)
- Basic Machine Learning

Pre-Workshop Checklist

Before the workshop, please make sure you complete the following items:

- Nothing! Bring some water to stay hydrated and get some sleep :D

Timeline (1 hour and 30 minutes)

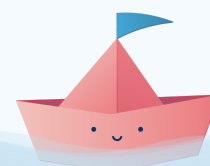| Time	Module	Description
20 min	Deep Learning Theory	Dive into Deep Learning and optimizers (i.e how machines learn).
10 min	TensorFlow Syntax and LSTMs	Learn about TensorFlow, which makes Deep Learning as simple as possible to learn!
15 min	Transformers and Transfer Learning	Learn about Transfer Learning Theory and Transformers, to build high-capacity models
15 min	HuggingFace Library	Take theory and apply it through the HuggingFace Library
30 min	Interactive Colab Notebook	Dive into Named Entity Recognition (NER) through an interactive Colab Notebook!

Workshop Lead Contact

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Additional Resources

Hack the North Resources

Hack the North 2021 Event Schedule

Check this out to stay up-to-date on activities, workshops, and other key happenings this weekend.

Workshop-Specific Resources

Slides:

Workshop Slides for NLP with Deep Learning

Colab Notebook:

Code and Colab Notebook for NLP with Deep Learning

General Resources

Resource

TensorFlow Documentation

Resource

HuggingFace Documentation