updated 06.02.20 **{n(** 181 notebooks

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Notebook

Added

Description

Model

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| 1.5B GPT2 Pretrained Chinese Model | 04.22.20 | Conduct inference on GPT-2 for Chinese Language | GPT-2 | Text Generation | Zhibo Zhang | (https://coIab.researc  /github/imcaspar  /gpt2-ml/blob  /master  /pretrained model dr |
| A Simple Neural Network from Scratch with PyTorch and Google Colab | 04.22.20 | Demo for building a NN using PyTorch for training | NN | n/a | Elvis Saravia | (https://coIab.researc  /drive  /109gHWFUlUzuwhg. |
| Al Dungeon 2 | 04.22.20 | Play the game based on GPT-2 | GPT-2 | Text Generation | Nick Walton | (https://coIab.researc  /github/nickwaIton  /AIDungeon  /bIob/master  /AIDungeon 2.ipynb?. |
| An Introduction to Natural Language in Python using spaCy | 04.22.20 | Demo for introducing spaCy  for NLP tasks | n/a | Lemmatizing, Chunking | Derwen.ai | (https://coIab.researc  /github/DerwenAI  /spaCy tuTorial  /bIob/master  /spaCy tuToriaI.ipynb |

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| Analyze Text Data with Yellowbrick | 04.22.20 | Demo for vectorizing and visualizing documents with various techniques | Various | Embeddings | Yelyzaveta L | (https://coIab.researc  /github/EIizaLo  /NLP—NaturaI— Language- Processing  /bIob/master  /AnaIyze%20Text%20  /AnaIyze%20Text%20 |
| Bangla Article Classification With TF- Hub | 04.22.20 | Demo for training a NN for text classification on a non-English Language with TF-Hub | NN | Text Classification | TensorFlow | (https://coIab.researc  /github/tensorflow  /hub/blob/master  /exampIes/coIab  /bangIa article classi |
| BART with Javascript UI | 06.02.20 | Demo for conducting inference with the BART model via Javascript UI | BART | Summarization | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb‹  /bIob/master  /BART with JS UI.ip |
| Basic CNN Part—of— Speech Tagger with Thins | 06.02.20 | Demo for training a POS tagger with the Thinc framework | CNN | Part—of—Speech (POS) | Explosion | (https://coIab.researc  /github/explosion  /thinc/blob/master  /exampIes  /03 pos tagger basis |

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| Basic Neural Bag-of- Words Text Classified with Thinc | 06.02.20 | Demo for training a text classified with the Thinc framework | n/a | Text Classification | Explosion | (https://coIab.researc  /github/explosion  /thinc/blob/master  /exampIes  /03 textcat basic nei |
| Basic Self-Attention | 04.22.20 | Guide for understanding the  self-attention model | self-Attention | n/a | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb(  /bIob/master  /basic self attention. |
| BBC Text Classification | 04.22.20 | Demo for training an ensemble of classical ML models from SKLearn for text classification | Ensemble | Text Classification | srushtidhope | (https://coIab.researc  /github  /srushtidhope/bbc- text-classification  /bIob/master  /bbc text cIassificati‹ |
| BERT (from HuggingFace Transformers) for Text Extraction | 06.02.20 | Demo for training BERT for question answering on SQuAD dataset | BERT | Question Answering | Apoorv Nandan | (https://coIab.researc  /github/keras- team/keras-io/blob  /master/examples  /nIp/ipynb  /text extraction with. |
| BERT Fine-Tuning Tutorial with PyTorch | 04.22.20 | Demo for fine-tuning BERT on the CoLA dataset for sentence classification | BERT | Sentence Classification | Chris McCormick, Nick Ryan | (https://coIab.researc  /drive  /1pTuQhug6Dhl9XalK |

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| Bert For Arabic QA | 04.22.20 | Demo for fine-tuning BERT on the Arabic-SQuAD dataset | BERT | Question Answering | Hussein Mozannar | (https://coIab.researc  /drive  /19a jlKpjhQez0KTa |
| BERT Generator | 04.22.20 | Using BERT in DeepPavlov’s framework to decode and conduct text generation | BERT | Text Generation | DeepPavlov | (https://coIab.researc  /github/deepmipt  /DeepPavIov  /bIob/docs  /transformers- tutorial/examples  /bert generator.ipynb |
| BERT IR Clueweb Desc-  Doc | 06.02.20 | Demo for using a GCP TPU for training and conducting inference for information retrieval on the ClueWeb09 dataset on the document level | BERT | Information Retrieval Document Level | Zhuyun Dai | (https://coIab.researc  /drive  /1qFGmEz5SZrsGui5 |
| BERT Word Embeddings Tutorial | 04.22.20 | Demo for understanding word embeddings with BERT | BERT | Embeddings | Chris McCormick, Nick Ryan | (https://coIab.researc  /drive  /1ZQvuAVwA3ljybezC |
| BERT-Torch | 04.22.20 | Demo for training and inference using BERT for predicting masked tokens | BERT | Predict Masked  Tokens | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /5-2.BERT  /BERT Torch.ipynb) |

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| Bidirectional LSTM O F  IMDB | 06.02.20 | Demo for training a 2-layer bidirectional LSTM on the IMDB movie review sentiment classification dataset | LSTM | Sentiment  Analysis | Chollet | (https://coIab.researc  /github/keras— team/keras-io/blob  /master/examples  /nIp/ipynb  /bidirectionaI Istm irr |
| Blender - Chit Chat Chatbot 90M | 06.02.20 | Demo for conducting inference with the 90M param Blender model | Transformer | Dialogue | Facebook AI | (https://coIab.researc  /drive/1NX- GFLeMpQm9fZXlclPs IA6T7?usp=sharing) |
| Build your Own French POS tagger | 05.14.20 | Demo for building your own POS tagger for the French language | n/a | Part-of-Speech (POS) | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp- workshop  /bIob/master  /tutoriaIs/coIab  /3—%20BuiId%20your° |
| Character-Level Recurrent Sequence-to- Sequence Model | 06.02.20 | Demo for implementing a basic character-level recurrent sequence-to-sequence model for translating short English sentences into short French sentences, character-by- character | LSTM | Machine Translation | Chollet | https://coIab.researc  /github/keras— team/keras—io/blob  /master/examples  /nIp/ipynb  /Istm seq2seq.ipynb) |
| Chatbot Tutorial | 04.22.2s | Demo for building a chit chat  chatbot | Seq2Seq | Dialogue | Matthew Inkawhich | https://coIab.researc  /drive/1Os6m- gZ7lt53hmMbCNGSJ |

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| Classification DeepPavlov | 04.22.20 | Demo for training a CNN  model for text classification | CNN | Intent Classification | DeepPavlov | (https://coIab.researc  /github/deepmipt  /DeepPavIov  /bIob/master  /exampIes  /cIassification tutoria |
| Classify Airbnb Reviews with NLP | 04.22.20 | Demo for training and inference using BERT for sentiment analysis | BERT | Sentiment Analysis | Tom Furu | (https://coIab.researc  /drive/1 iEw— BfpPNhhELha7l79FfK |
| Classifying Names with a Character-Level RNN | 04.22.20 | Demo for building a model to classify words for their language of origin | RNN | Text Classification | Sean Robertson | (https://coIab.researc  /drive  /10v0e4dsd7VFymz? |
| CIueWeb09-B Passages (BERT-MaxP, BERT-  SumP) | 06.02.20 | Demo for using a GCP TPU for training and conducting inference for information retrieval on the ClueWeb09 dataset on the passage level | BERT | Information Retrieval Passage Level | Zhuyun Dai | (https://coIab.researc  /drive  /1YAj yA7R8Sv9QaJL |
| Codalab Emocontext Language CompetiItiIon | 04.22.20 | Demo for training a model to classify emotion from dialogue | BERT | Text Classification | Petros Christodoulou | (https://coIab.researc  /drive/1 WJ-  AmYzJLV7Joshl6Uxt\* wuGJ0ufu) |
| Codalab Offensive Language Competition | 04.22.20 | Demo for training BERT to classify offensive language text | BERT | Text Classification | Petros Christodoulou | (https://coIab.researc  /drive  /1AstCNMK5 SMMK. |

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| ColbertAlv2.0 | 05.14.20 | Demo for using GPT-2 for generating text fine-tuned on Stephen Colbert monologues from YouTube | GPT-2 | Text Generation | Abbas Mohammed & Shubham Rao | (https://coIab.researc  /gist/iam— abbas/b93961 bc946f  /coIbert—ai— v2.ipynb) |
| Collaborative Filtering for Movie Recommendations | 06.02.20 | Demo for training a recommender system based on the movielens dataset via collaborative filtering | Keras NN | Recommender System | Siddhartha Banerjee | (https://coIab.researc  /github/keras— team/keras—io/blob  /master/examples  /structured data  /ipynb  /coIIaborative filterin( |
| COVID 19 BERT  Research Papers Semantic Search | 04.22.20 | Demo for creating a semantic search engince to search for COVID related research papers | BERT | Semantic Search | theamrzaki | (https://coIab.researc  /github/theamrzaki  /C0VID-19-BERT-  ResearchPapers- Semantic-Search  /bIob/master  /COVID 19 BERT Re! |
| Cross-Lingual Similarity and Semantic Search Engine with Multilingual Universal Sentence Encoder | 04.22.20 | Demo for using the Multilingual Universal Sentence Encoder module and use it for sentence similarity across multiple languages. | Universal Sentence Encoder | Semantic Text Similarity | TensorFlow | (https://coIab.researc  /github/tensorflow  /hub/blob/master  /exampIes/coIab  /semantic similarity |
| Custom Classifier on Top of Transformers Language Models | 06.02.20 | Demo for training a transformer for sentiment analysis with the Polish language | PoIBERTa | Sentiment Analysis | Marcin Zablocki | (https://coIab.researc  /drive  /1sajgpLTrTJDzRSlxy |

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| Data Augmentation by Paraphrasing | 05.14.20 | Demo for conducting inference with a GPT-2 model trained on the ParaNMT-5OM dataset | GPT-2 | Paraphrasing | Rasa | (https://coIab.researc  /drive  /1RGWrgv3e0CRDPC |
| Deeppavlov BERT Showcase | 05.14.20 | Demo for using DeepPavlov library for various NLP tasks | Various | Framework | Kapil Chauhan | (https://coIab.researc  /drive  /1PC7G5giFfaXBBDH mXHVOn45) |
| DialoGPT Using Transformers | 06.02.20 | Demo for conducting inference with the DialoGPT model for chit chat dialogue | DialoGPT | Dialogue | Manuel Romero | (https://coIab.researc  /github/mrm8488  ' shared colab noteb(  /bIob/master  /DiaIoGPT using  %F0%9F  %A4%97Transformer! |
| DiaIoGPT— Chatbot | 04.22.2s | Demo for using the DialoGPT chatbot | GPT-2 | Dialogue | Hugging Face | (https://coIab.researc  /drive/1uib2- bxqYKR3lRdEm0h M |
| E2E-TTS using ESPnet- TTS and ParaIIeIWaveGAN (+ MeIGAN) | 04.22.20 | Text to Speech demo for English, Japanese, and Mandarin | Various | Text-to-Speech | Erdene-0chir Tuguldur | (https://coIab.researc  /github/espnet  /notebook  /bIob/master  /tts realtime demo.ip |

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| English Text To Speech | 04.22.20 | An English female voice (LJSpeech) demo using tugstugi/pytorch-dc-tts with the Griffin-Lim algorithm | CNN w/ Attention | Text—to—Speech | Erdene-ochir Tuguldur | (https://coIab.researc  /github/tugstugi  /pytorch-dc- tts/blob/master  /notebooks  /EngIishTTS.ipynb) |
| Entity Recognizer DL | 05.14.20 | Demo for using NER and entity extractor for sentences | n/a | NER, Entity Extraction | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp-  workshop  /bIob/master  /tutoriaIs/coIab  /4-%20Entity%20Rec‹ |
| ESPnet Speech Translation Demonstration | 04.22.20 | Demo for Spanish to English speech translation and English speech generation | ESPnet | Speech Translation | Erdene-ochir Tuguldur | (https://coIab.researc  /github/espnet  /notebook  /bIob/master  /st demo.ipynb) |
| Extracting Text from PDF Files | 04.22.20 | Demo for using a PDF text extractor | n/a | Information Extraction | Derwen.ai | (https://coIab.researc  /github/DerwenAI  /spaCy tuTorial  /bIob/master  /Extract Text from P |

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| FastHugs: Language Modelling with Tranformers and Fastai | 06.02.20 | Demo for training a transformer language model from scratch or fine-tune a pretrained transformer using fast.ai and Huggingface | Transformer | Language Modeling | Morgan McGuire | (https://coIab.researc  /github  /morganmcg1  /ntentionaI  /bIob/master  / notebooks  /2020-04-24-  fasthugs language rr |
| FastText Template | 04.22.20 | Demo using FastText template for training and inference | FastText | Sentence Classification | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /1-3.FastText  /FastText.ipynb) |
| Find the Shortest Path  in a Graph | 06.02.20 | Demo for using the Graph Nets library to predict the shortest path between two nodes in graph | n/a | Shortest Path Finding | DeepMind | (https://coIab.researc  /github/deepmind  /graph nets  /bIob/master  /graph nets  /demos  /shortest path.ipynb) |
| Fine Tune DistiIGPT-2 on Marco Aurelio Medidations for Text Generation | 06.02.20 | Demo for training and conducting inference with DistiIGPT-2 on the Meditations book | DistiIGPT-2 | Text Generation | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb(  /bIob/master  /distiIGPT2 finetuned |

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| Finetuning Transformers With JAX and Haiku | 05.14.20 | Demo for using RoBERTa pre- trained model to JAX + Haiku, then finetuning the model to solve a downstream task | RoBERTa | Text  Classification | Madison May | (https://coIab.researc  /drive/1kqLY-  oofgLS-8 xWq-  r T7sNnjsglMwe) |
| Fundamentals of NLP: Tokenization, Lemmatization, Stemming, and Sentence Segmentation | 04.22.20 | Demo for executing various NLP techniques via Spacy and NLTK | n/a | Various | Elvis Saravia | (https://coIab.researc  /github/mrm8488  /shared colab noteb(  /bIob/master  /nIp basics tokenizat |
| Generate word embeddings using Swivel | 05.14.20 | Demo for using Swivel to leaRFI  word embeddings | Swivel | Embeddings | Ronald Denaux & Jose Manuel Gomez-Perez | (https://coIab.researc  /github  /HybridNLP2018  /tutoriaI  /bIob/master  /01 capturing word ‹ |
| Generating Names with a Character-Level RNN | 04.22.20 | Demo for building a model to generate words from their language of origin | RNN | Text Generation | Sean Robertson | (https://coIab.researc  /drive  /165YAVmrWuuM— ESZ2ELUJahkpgH3fy |
| Getting Started Transformers | 04.22.20 | Intro to transformers, different frameworks, and inference | BERT,  DistilBERT | Tutorial | Hugging Face | (https://coIab.researc  /github  /huggingface  /transformers  /bIob/master  /notebooks/02- transformers.ipynb) |

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| Git Quora Insincere  Questions Classification | 04.22.20 | Demo for training and inference several models on the Quora Insincere Questions dataset | RNN, LSTM | Text Classification | Abeer Abu Zayed | (https://coIab.researc  /github  /AbeerAbuZayed  /Quora-Insincere- Questions- Classification  /bIob/master  /Quora Insincere Quo |
| Goal-Oriented Bot n  DeepPavlov | 04.22.20 | Demo for building goal- oriented chatbot using DeepPavlov's framework | RNN | Dialogue | DeepPavlov | (https://coIab.researc  /github/deepmipt  /DeepPavIov  /bIob/master  /exampIes  /gobot extended tuts |
| Google JSON API Custom Search Engine for Pywombat | 04.22.20 | Use Google’s Custom Search engine API to search about the topic of exercise | API | Search | Oleksis Fraga Menñndez | (https://coIab.researc  /github/oIeksis  /notebooks  /bIob/master  /customsearch api p |
| GPT-2 that Runs from Colab with Javascript Interface | 04.22.20 | Demo for training GPT-2 1.5B inference w/ front end | GPT—2 | Text Generation | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb(  /bIob/master  /GPT2 with JS UI.ip |



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| Graph Construction | 04.22.20 | Demo for building a graph model for ranking text | PageRank | Ranking | Derwen.ai | (https://coIab.researc  /github/DerwenAI  /spaCy tuTorial  /bIob/master  /Text Rank.ipynb) |
| Hotel Review Sentiment Analysis Machine Learning | 04.22.20 | Demo for training and evaluating an LSTM for sentiment analysis on tweets | Logistic Regression | Sentiment Analysis | RaihanAk | (https://coIab.researc  /github/RaihanAk  /HoteI-Review- Sentiment-  Analysis MachineLea  /bIob/master  /HoteI%20Review%2C |
| How to Build a Simple Text Classified With TF- Hub | 04.22.20 | Demo for training and inference on the IMDB Movie Dataset | NNLM | Sentiment Analysis | TensorFlow Hub | (https://coIab.researc  /github/tensorflow  /hub/blob/master  /docs/tutorials  /text classification w |
| How to Build a Simple Text Classified with TF— Hub | 04.22.20 | Demo for training a NN for text classification with TF-Hub | NN | Text Classification | TensorFlow | (https://coIab.researc  /github/tensorflow  /hub/blob/master  /docs/tutorials  /text classification w |
| How to Fine-tune RuPERTa-Base for POS Downstream Task | 06.02.20 | Demo for training and conducting inference with RoBERTa for part-of-speech tagging with the Spanish | RoBERTa | Part—of—Speech (POS) | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb‹  /bIob/master  /RuPERTa base finet |

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| How to Generate Text | 04.22.20 | Learn to use using different decoding methods for language generation with Transformers | GPT-2 | Text Generation | Hugging Face | (https://coIab.researc  /github  /huggingface  /bIog/blob/master  /notebooks  /02 how to generate |
| How to Generate Text: Using Different Decoding Methods for Language Generation with Transformers | 04.22.20 | Demo for using various decoding parameters in GPT-2 inference | GPT-2 | Text Generation | Patrick von Platen | (https://coIab.researc  /github  /huggingface  /bIog/blob/master  /notebooks  /02 how to generate |
| How to Train a Language Model | 04.22.20 | Use a large web crawled dataset to train a transformer from scratch | RoBERTa | Language Modeling | Hugging Face | (https://coIab.researc  /github  /huggingface  /bIog/blob/master  /notebooks  /01 how to train.ipyr |
| How to Use Light Pipelines | 05.14.20 | Demo for using SparkNLP pipeline class for preprocessing operations | n/a | Preprocessing | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp-  workshop  /bIob/master  /tutoriaIs/coIab  /1-%20How%20to%2 |

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| How to Use Pipelines | 04.22.20 | Transformers pipelines provides a high-level, easy to use, API for doing inference over a variety of downstream- tasks, including: Sentence classification, Token classification, Question Answering, Mask-Filling, Feature Extraction | Various | Fine-Tuning | Hugging Face | (https://coIab.researc  /github  /huggingface  /transformers  /bIob/master  /notebooks/03- pipelines.ipynb) |
| Hugging Face + Weights & Biases | 05.14.20 | Demo for training BERT on the MRPC dataset with Wandb visualizations | BERT | Semantic Text  Similarity | Hugging Face | (https://coIab.researc  /drive  /1NEiqNPhiouu2pPw/ vTYMz9F8) |
| HuggingTweets - Train a Model to Generate Tweets | 06.02.20 | Demo for training and conducting inference with GPT-2 on tweets | GPT-2 | Text Generation | Boris Dayma | (https://coIab.researc  /github  /borisdayma  /huggingtweets  /bIob/master  /huggingtweets- demo.ipynb) |
| Hybrid Goal-Oriented Bot | 04.22.20 | Train a goal-oriented chatbot using DeepPavlov's framework | RNN | Dialogue | DeepPavlov | (https://coIab.researc  /github/deepmipt  /dp tutorials  /bIob/master  /TutoriaI 3 Hybrid bc |

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| Inference Demo for Mellotron on Google COLAB | 04.22.20 | Conduct inference on Mellotron: a multispeaker voice synthesis model based on Tacotron 2 GST that can make a voice emote and sing without emotive or singing training data. | Mellotron | Text-to-Speech | Erdene-Ochir Tuguldur | (https://coIab.researc  /github/yhgon  /meIIotron  /bIob/master  /inference coIab.ipyn |
| Intro to Keras for Engineers | 06.02.20 | Demo for using Keras to build real-world machine learning solutions | n/a | Framework | Chollet | (https://coIab.researc  /drive  /1IWUGZarIbORaHYU |
| Intro to Keras for Researchers | 05.14.20 | Demo for using Keras framework for research experiments | n/a | Framework | Chollet | (htps:/coIab.reseac  /drive  /1qKPITTI879YHTxb1 |
| Intro to Thinc for Beginners: Defining a Simple Model and Config & Wrapping PyTorch, TensorFlow and MXNet | 06.02.20 | Demo for defining a model and config & wrapping PyTorch, TensorFlow and MXNet using the Thinc framework | n/a | Framework | Explosion | (https://coIab.researc  /github/explosion  /thinc/blob/master  /exampIes  /00 intro to thinc.ipy |
| Keras OCR | 04.22.20 | Demo for OCR inference | CRNN | Optical Character Recognition (OCR) | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb(  /bIob/master  /keras ocr custom.ip |

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| Keras Overview | 04.22.20 | Demo for getting an in-depth introduction to TensorFlow | NN | n/a | TensorFlow | (https://coIab.researc  /github/tensorflow  /docs/blob/master  /site/en/guide  /keras  /overview.ipynb) |
| Knowledge Graph Embeddings | 05.14.20 | Demo for learning knowledge graph embeddings from WordNet | n/a | Embeddings | Ronald Denaux & Jose Manuel Gomez—Perez | (https://coIab.researc  /github  /HybridNLP2018  /tutoriaI  /bIob/master  /02 knowledge graph |
| MarianMT en- ROMANCE | 05.14.20 | Demo for conducting machine translation for several languages | Transformer | Machine Translation | Sam Shleifer | (https://coIab.researc  /drive  /1z9UtSETxVrDhYnH YTFNrz) |
| Mongolian Text To Speech with Tacotron | 04.22.20 | This is a Mongolian text to speech inference demo using the data from the Mongolian Bible audio book with Tacotron | Tacotron | Text-to-Speech | Erdene-Ochir Tuguldur | (https://coIab.researc  /github/tugstugi  /mongoIian- nlp/blob/master  /misc/Tacotron Mona |
| Morpho Tagger | 04.22.20 | Demo for using a morphological tagger | n/a | Morphological  Tagging | DeepPavlov | (https://coIab.researc  /github/deepmipt  /DeepPavIov  /bIob/master  /exampIes  /morphotagger exarr |

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| Multi-Lingual BERT on  XQUAD - Cased | 04.22.20 | Demo for using Multi-Lingual BERT for translation on 11 languages | BERT | Machine Translation | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb(  /bIob/master  /Try mrm8488 xqua‹ |
| Multi-Lingual BERT on XQUAD - Uncased | 04.22.20 | Demo for using Multi-Lingual BERT for translation on 11 languages | BERT | Machine Translation | Manuel Romero | (https://coIab.researc  /github/mrm8488  /shared colab noteb‹  /bIob/master  /Try mrm8488 xqua‹ |
| Natural Language Processing with RNNs and Attention | 05.14.20 | Demo for training an RNN for sentiment analysis | RNN | Sentiment Analysis | Aurelien Geron |  |
| NER with BERT in Spark  NLP | 06.02.20 | Demo for training and conducting inference with a custom NER pipeline with BERT | BERT | Named Entity Recognition (NER) | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp- workshop  /bIob/master  /tutoriaIs  /bIopposts  /3.NER with BERT.ip |

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| Neural Network Language Model | 04.22.2s | Train and infer with language model | n/a | Language Modeling | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /1-1.NNLM  /NNLM Tensor.ipynb |
| Open-Dialog Chatbots for Learning New Languages | 06.02.20 | Demo for training DialoGPT on a new dataset or language for open-dialog conversational chatbots | DialoGPT | Dialogue | Nathan Cooper | (https://coIab.researc  /github/ncoop57/i-  am-a-nerd  /bIob/master  / notebooks  /2020-05-12-  chatbot— part-1.ipynb) |
| Persian Sentiment Analysis With LSTM & Fasttext | 04.22.20 | Demo for training an LSTM for sentiment analysis in Persian | LSTM | Sentiment Analysis | Alireza  Keshavarz | (https://coIab.researc  /github/ashaIogic  /Persian- Sentiment-Analyzer  /bIob/master  /TutoriaI.ipynb) |
| Pipeline Example Performing the Bert Preprocessing with TensorFlow Transform | 04.22.20 | Demo and tutorial using TFX for production-level ML pipeline using BERT | BERT | Sentiment Analysis | TensorFlow | (https://coIab.researc  /github/tensorflow  /workshops  /bIob/master  /bIog/TFX Pipeline f‹ |

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| Pointer Generator Seq2Seq Network | 04.22.20 | Implementation uses the concept of having a pointer generator network to diminish some problems that appears with the normal seq2seq network | Seq2Seq | Summarization | theamrzaki | (https://coIab.researc  /github/theamrzaki  /text summurization.  /bIob/master  /ImpIementation%20l  /ModeI 4 generator . |
| Pre-training SmaIIBERTa | 05.14.20 | Demo for pretraining a small sized version of BERT on the SpamClickBait News dataset | BERT | Language Modeling | Aditya Malte | (https://coIab.researc  /gist/aditya— maIte/2d4f896f471b‹  /smaIIberta pretrainir |
| Predicting Movie Review Sentiment with BERT on TF Hub | 04.22.20 | Sentiment analysis using BERT | BERT | Sentiment Analysis | FirmAl | (https://coIab.researc  /github/googIe- research/bert/blob  /master  /predicting movie re |
| Pyserini Demo on COVID-19 Dataset (Paragraph Index) | 05.14.20 | Demo for searching the COVID-19 Open Research Dataset (release of 2020/04/03) from AI2, with paragraph index | Pyserini | Ranking | Castorini | (https://coIab.researc  /github/castorini  /anserini- notebooks  /bIob/master  /pyserini covid19 pal |
| Pyserini Demo on COVID-19 Dataset (Title  + Abstract Index) W HuggingFace Transformers Based Visualization | 05.3 4.20 | Demo for searching the COVID-19 Open Research Dataset (release of 2020/03/20) from Al2 with a title + abstract index. | Pyserini | Ranking | Castorini | (https://coIab.researc  /github/castorini  /anserini- notebooks  /bIob/master  /Pyserini%2BSciBERT |

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| Pyserini Demo F)  Robust04 | 05.14.20 | Demo provides a brief overview of how to use Pyserini, the Python interface to Anserini, to search the collection from TREC 2004 | Pyserini | Ranking | Castorini | (https://coIab.researc  /github/castorini  /anserini- notebooks  /bIob/master  /pyserini robust04 d‹ |
| Pyserini Demo on the MS MARCO Passage Dataset | 05.14.20 | Demo replicates the BM25 baseline for the MS MARCO passage ranking task with Pyserini | Pyserini | Ranking | Castorini | (https://coIab.researc  /github/castorini  /anserini- notebooks  /bIob/master  /pyserini msmarco p |
| Pytorch Fairseq Translation | 06.02.20 | Demo for conducting machine translation, English-German and English-French | Transformer | Machine Translation | Facebook AI | (https://coIab.researc  /github/pytorch  /pytorch.github.io  /bIob/master  /assets  /hub/pytorch fairseq. |
| Question Answering with a Fine-Tuned BERT | 04.22.20 | Demo and tutorial using BERT for conducting inference on question answering | BERT | Question Answering | Chris McCormick | (https://coIab.researc  /drive  /1uSIWtJdZmLrI3FCf 1zl5XdYlnf) |

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| R-GCN in PyTorch | 06.02.20 | Demo for training relational graph convolutional networks (R-GCNs) for the link- prediction task within knowledge graphs | R-GCN | Link Prediction | Giuseppe Futia | (https://coIab.researc  /github  /giuseppefutia  /machine-learning  /bIob/master  /rgcn.ipynb) |
| Reformer - Pushing the Limits of Language Modeling | 06.02.20 | Demo for training the Reformer for long sequence modeling on the "Crime and Punishment" book | Reformer | Text Generation | Patrick von Platen | (https://coIab.researc  /github  /patrickvonpIaten  /notebooks  /bIob/master  /PyTorch Reformer.ip |
| Results Extraction | 06.02.20 | Demo for extracting machine learning results with the AxCell model | AxCell | Information Extraction | Paperswithcode | (https://coIab.researc  /github  /paperswithcode  /axceII  /bIob/master  /notebooks  /resuIts- extraction.ipynb?auth |
| RoBERTa Fine-Tuning Emotion Classification | 05.14.20 | Demo for training distilRoBERTa for emotion classification w/ PyTorchLightning | DistilRoBERTa | Sentiment Analysis | Elvis Saravia | (https://coIab.researc  /drive  /1nwCE6b9PXlKhv2h |
| Robust Query BERT IR | 06.02.20 | Demo for using a TPU for training and conducting inference for information retrieval on the passage level | BERT | Information Retrieval Document Level | Zhuyun Dai | (https://coIab.researc  /drive  /1GOarqNmsDj fM0C |

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| Robust Query Passage BERT IR | 06.02.20 | Demo for using a TPU for training and conducting inference for information retrieval on the document level | BERT | Information Retrieval Passage Level | Zhuyun Dai | (https://coIab.researc  /drive/1IgfAVtTsGf— YHPPSfsr8BN4W8Qa |
| Sarcasm Classifiers (GIoVe and CNN) | 05.14.20 | Demo for training a sarcasm classifier from GIoVe vectorizer | CNN | Text Classification | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp-  workshop  /bIob/master  /tutoriaIs/coIab  /8—%20Sarcasm%20C |
| Sarcasm Classifiers (TF-IDF) | 05.14.20 | Demo for training a sarcasm classified from TF-IDF vectorizer | Random Forest | Text Classification | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp- workshop  /bIob/master  /tutoriaIs/coIab  /6—%20Sarcasm%20C IDF).ipynb) |
| Sarcasm Classifiers (Word2vec and MLP) | 05.14.20 | Demo for training a sarcasm classifier from Word2vec vectorizer | Multi—Layered Perceptron | Text Classification | John Snow Labs | (https://coIab.researc  /github  /JohnSnowLabs  /spark-nIp- workshop  /bIob/master  /tutoriaIs/coIab  /7-%20Sarcasnn%20C |

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| Scene Text Detection  with CRAFT | 04.22.20 | This notebook uses an open source implementation of the paper Character Region Awareness for Text Detection to detect scene text on a given image. | CRAFT | Scene Text Detection | Erdene-0chir  Tuguldur | (https://coIab.researc  /github/tugstugi  /dI—coIab— notebooks  /bIob/master  /notebooks  /CRAFT.ipynb) |
| Scene Text Detection  with EAST | 04.22.20 | This notebook uses ResNet o detect text areas on a given image. | ResNet-50 | Scene Text Detection | Erdene-Ochir  Tuguldur | (https://coIab.researc  /github/tugstugi  /dI—coIab— notebooks  /bIob/master  /notebooks  /EAST.ipynb) |
| Scene Text Detection with PixelLink | 04.22.20 | This notebook uses PixelLink to detect text areas on a given image. | PixelLink | Scene Text Detection | Erdene-Ochir Tuguldur | (https://coIab.researc  /github/tugstugi  /dI-coIab- notebooks  /bIob/master  /notebooks  /PixeILink.ipynb) |
| Scigraph Annotations CNN Classifier | 05.14.20 | Demo for training and evaluating a CNN model for classifying scientific articles from SciGraph | CNN | Text Classification | Ronald Denaux & Jose Manuel Gomez-Perez | (https://coIab.researc  /github  /HybridNLP2018  /tutoriaI  /bIob/master  /09 classification of |

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| Semantic Search with Approximate Nearest Neighbors and Text Embeddings from TF- Hub | 04.22.20 | Demo for building an approximate nearest neighbours (ANN) index using extracted embeddings | ANN | Semantic Text Similarity | TensorFlow | (https://coIab.researc  /github/tensorflow  /hub/blob/master  /exampIes/coIab  /semantic approximz |
| Sentence Classification Using Transfer Learning with Huggingface BERT and Weights & Biases | 05.14.20 | Demo for using BERT on the CoLa dataset and using visualization via Weights & Biases | BERT | Sentence Classification | Ayush Chaurasia | (https://coIab.researc  /drive  /13ErkLg5FZHIbnUG‹ 9WNCNQPIow) |
| Sentence Classification with Word Embeddings | 04.22.20 | Learn how to conduct sentence classfiication using DeepPavlov Framework | CNN | Sentence Cassification | DeepPavlov | (https://coIab.researc  /github/deepmipt  /dp tutorials  /bIob/master  /TutoriaI 1 Sentence. |
| Sentiment Analysis with LSTM | 04.22.20 | Demo for training and evaluating an LSTM for sentiment analysis on tweets | LSTM | Sentiment Analysis | Rohit Kumar | (https://coIab.researc  /github/Greybeast  /Sentiment- Classification- LSTM/blob/master  /Sentiment%20CIassi |
| Seq2Seq(Attention)- Tensor | 04.22.20 | Demo for training and inference using Seq2Seq model for sentence translation | Seq2Seq w/ Attention | Machine Translation | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /4-2.Seq2Seq(Attenti‹  /Seq2Seq(Attention) |

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| Seq2Seq(Attention)- Torch | 04.22.20 | Demo for training and inference using Seq2Seq model for sentence translation | Seq2Seq w/ Attention | Machine Translation | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /4-2.Seq2Seq(Attenti(  /Seq2Seq(Attention) |
| Seq2Seq-Tensor | 04.22.20 | Demo for training and inference using Seq2Seq model for word translation | Seq2Seq | Machine Translation | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /4—1.Seq2Seq  /Seq2Seq Tensor.ipyt |
| Seq2Seq-Torch | 04.22.20 | Demo for training and inference using Seq2Seq model for word translation | Seq2Seq | Machine Translation | Tae Hwan Jung | (https://coIab.researc  /github/graykode  /nIp-tutorial  /bIob/master  /4-1.Seq2Seq  /Seq2Seq Torch.ipynl |
| Sequence Classification with Transformers | 04.22.20 | Demo for fine-tuning transfomers for sentence classification on the Microsoft Research Paraphrase Corpus (MRPC) | BERT, RoBERTa | Sentence Classification | Hugging Face | (https://coIab.researc  /drive  /1I39vWjZ5jRUimSgE |
| Sequence Classification with Transformers using TensorFlow's  Strategies | 04.22.20 | Demo for fine-tuning DistilBERT on Microsoft Research Paraphrase Corpus (MRPC), on a TPU | DistilBERT | Sentence Classification | Hugging Face | (https://coIab.researc  /drive  /1yWaLpCWlmXZE2f |

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| Sequence to Sequence Learning for Performing Number Addition | 06.02.20 | Demo for training an LSTM model to learn to add two numbers, provided as strings | LSTM | Arithmetic | Smerity | (https://coIab.researc  /github/keras- team/keras-io/blob  /master/examples  /nIp/ipynb  /addition rnn.ipynb) |

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