

1. Record Nr.	UNINA9910466708103321
Autore	Arumugam Rajesh
Titolo	Hands-on natural language processing with Python : a practical guide to applying deep learning architectures to your NLP applications // Rajesh Arumugam, Rajalingappaa Shanmugamani
Pubbl/distr/stampa	Birmingham ; ; Mumbai : , : Packt Publishing, , 2018
ISBN	1-78913-591-5
Edizione	[1st edition]
Descrizione fisica	1 online resource (307 pages) : illustrations
Disciplina	005.133
Soggetti	Python (Computer program language) Natural language processing (Computer science) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Foster your NLP applications with the help of deep learning, NLTK, and TensorFlow Key Features Weave neural networks into linguistic applications across various platforms Perform NLP tasks and train its models using NLTK and TensorFlow Boost your NLP models with strong deep learning architectures such as CNNs and RNNs Book Description Natural language processing (NLP) has found its application in various domains, such as web search, advertisements, and customer services, and with the help of deep learning, we can enhance its performances in these areas. Hands-On Natural Language Processing with Python teaches you how to leverage deep learning models for performing various NLP tasks, along with best practices in dealing with today's NLP challenges. To begin with, you will understand the core concepts of NLP and deep learning, such as Convolutional Neural Networks (CNNs), recurrent neural networks (RNNs), semantic embedding, Word2vec, and more. You will learn how to perform each and every task of NLP using neural networks, in which you will train and deploy neural networks in your NLP applications. You will get accustomed to using RNNs and CNNs in various application areas, such as text classification and sequence labeling, which are essential in the application of sentiment

analysis, customer service chatbots, and anomaly detection. You will be equipped with practical knowledge in order to implement deep learning in your linguistic applications using Python's popular deep learning library, TensorFlow. By the end of this book, you will be well versed in building deep learning-backed NLP applications, along with overcoming NLP challenges with best practices developed by domain experts. What you will learn

- Implement semantic embedding of words to classify and find entities
- Convert words to vectors by training in order to perform arithmetic operations
- Train a deep learning model to detect classification of tweets and news
- Implement a question-answer model with search and RNN models
- Train models for various text classification datasets using CNN
- Implement WaveNet a deep generative model for producing a natural-sounding voice
- Convert voice-to-text and text-to-voice
- Train a model to convert speech-to-text using DeepSpeech

Who this book is for Hands-on Natural Language Processing with Python is for you if you are a developer, machine learning or an NLP engineer who wants to build a deep learning application that leverages NLP techniques. This comprehen...
