Fast, Precise and
Intuitive Natural Language Processing

Cortical.io's brain-like technology helps to understand
the meaning hidden in Big Text Data.

What we offer

Fast, Precise and Intuitive NLP

High Performance Language Intelligence

Big Data Semantics

Intelligence & Security   Website Search

Enterprise Search

Profile Matching

Product Search

Information Discovery   Alerting Systems   Content Classification

Keyword Generation   **Opinion Mining**

Office Automation   Forensic Text Analytics

Cortical.io has developed an easy-to-use, powerful Natural Language Processing engine for text filtering, classification, clustering and searching that operates on the semantic rather than keyword level. The Retina Engine works with any kind of text, independently of language and length. It can be customized via unsupervised learning for any business or scientific domain.

The Retina converts text from contracts, blogs, social media posts, product description, or any other source into a Semantic Fingerprint that contains all associated contexts. Instead of keywords, the Retina uses the semantic space to search the meaning contained in entire sentences, paragraphs and documents and delivers high quality results based on fine-grained deep semantics.

You can use Cortical.io's Retina engine via:

- the Retina API, which allows to perform complex NLP operations with single calls to the API

- the Retina Spark, which has been designed for high performance semantic text processing in an Apache Spark environment.

With Cortical.io, you can locate documents, find web content, match people, identify products, monitor your competition, track customer satisfaction, discover new knowledge, and much more.

Cortical.io's Retina engine enables a new range of applications to improve social media analytics, compliance monitoring, enterprise search, information discovery, etc.

With the Retina Engine, you can now develop intelligent applications that analyze text in real time, in any language.

What our customers are saying

"The results delivered by the Retina API are so fast and efficient that we could not have built our Content Optimizer without Cortical.io."

Scott Johnson, Founder & CEO, Zoomrank

Learn more

Visit us at **www.cortical.io**
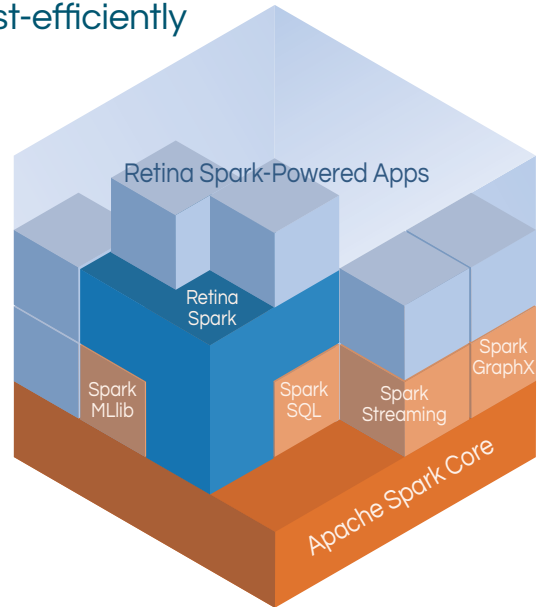to try our demos and learn more about our technology.

cortical.io

Retina Spark:

Search and analyze
Big Text Data repositories cost-efficiently

Highlights

- Specially designed for **high performance semantic processing**

- Can be applied to **high throughput text streams** (streaming text filtering)

- Uses **semantic space** instead of keywords and **enables context-based search**

- **Very simple to use** without any prior experience in NLP or linguistics

- **Works across languages**, e.g. compares directly an English text with a Spanish one

- **No configuration or parameter tweaking**

- **Customizable** via unsupervised learning **for any language and domain**

Retina Spark-Powered Apps
Retina Spark
Spark MLlib
Spark SQL
Spark Streaming
Spark GraphX
Apache Spark Core

Because of their small size, Cortical.io fingerprints require only 10 % of the memory usually required to perform complex NLP operations. Execution on modern superscalar CPUs can be orders of magnitudes faster, terabytes of data can be processed efficiently.

Retina Spark Features:

Perform the following operations on huge text data collections and on streaming text (e.g. social media feeds):

- Get **similar terms**

- Extract a **list of keywords**

- **Slice a text into sub-sections** corresponding to semantic changes

- **Tokenization**

- **Split a text** into sentences

- Create an index of text or document fingerprints **for high performance search**

- **Measure the semantic similarity** between two terms, texts or documents

- **Create a semantic classifier fingerprint** based on positive examples of a class

Access:

- Cloudera certified

- Usable with on-premise or in-the-cloud Spark clusters (Cloudera, Amazon EMR)

- Supports the latest Apache Spark releases

- Features a Java and Scala API

- Extension library to Spark MLlib

- Integrates into the spark.ml pipeline API

If you are interested in accessing the Retina engine via an API, please consult the product fact sheet for the Retina API.

About Cortical.io:

Cortical.io develops and commercializes Natural Language Processing (NLP) solutions based on its proprietary Semantic Folding technology, which offers a fundamentally new approach to handling Big Text Data. Inspired by the latest findings on the way the human neocortex processes information, Cortical.io represents language with highly efficient semantic fingerprints. The Cortical.io Retina is the first semantic engine that can process terabytes of unstructured text in real time, for any language and business domain – thus enabling global businesses to leverage the value Big Text Data has to offer. The company was founded in 2011 and holds a broad general license for Numenta's HTM technology. Cortical.io has offices in in Vienna, Austria, and the San Francisco Bay Area.

For additional information, please visit **www.cortical.io**

cortical.io
A partner of
Numenta