

# Inteligencia artificial avanzada para la ciencia de datos l

TC3006C.71 Módulo 5 NLP1



### EMMANUEL PÁEZ

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#### EXPERIENCE

ITC **2017**MSC Artificial Intelligence UK **2019**Consultant and instructor Google
Cloud Platform **6 years** 

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#### GCP CERTIFICATIONS



#### ABOUT ME

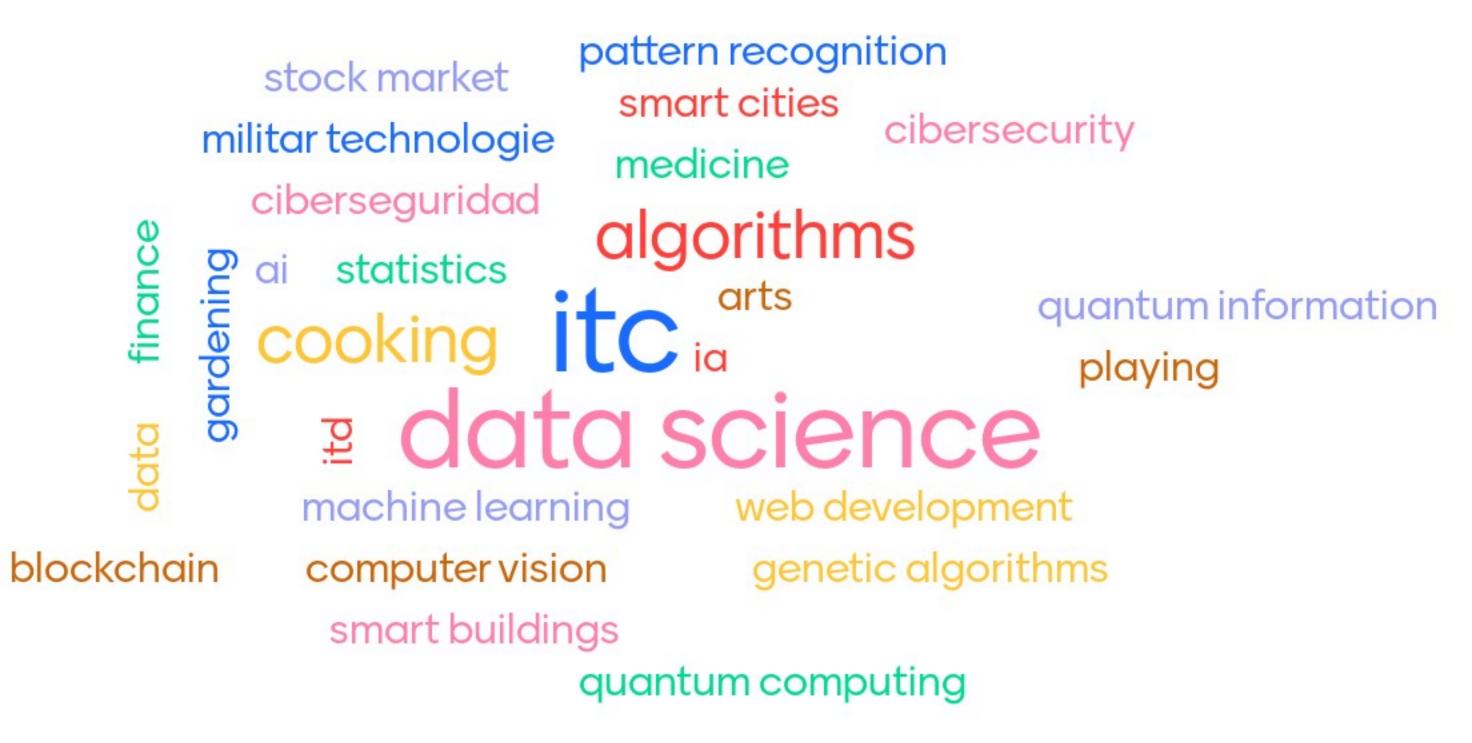
I love Artificial Intelligence, Natural Language Processing, Disruptive Technologies and Data Science.

Science Fiction Fan.

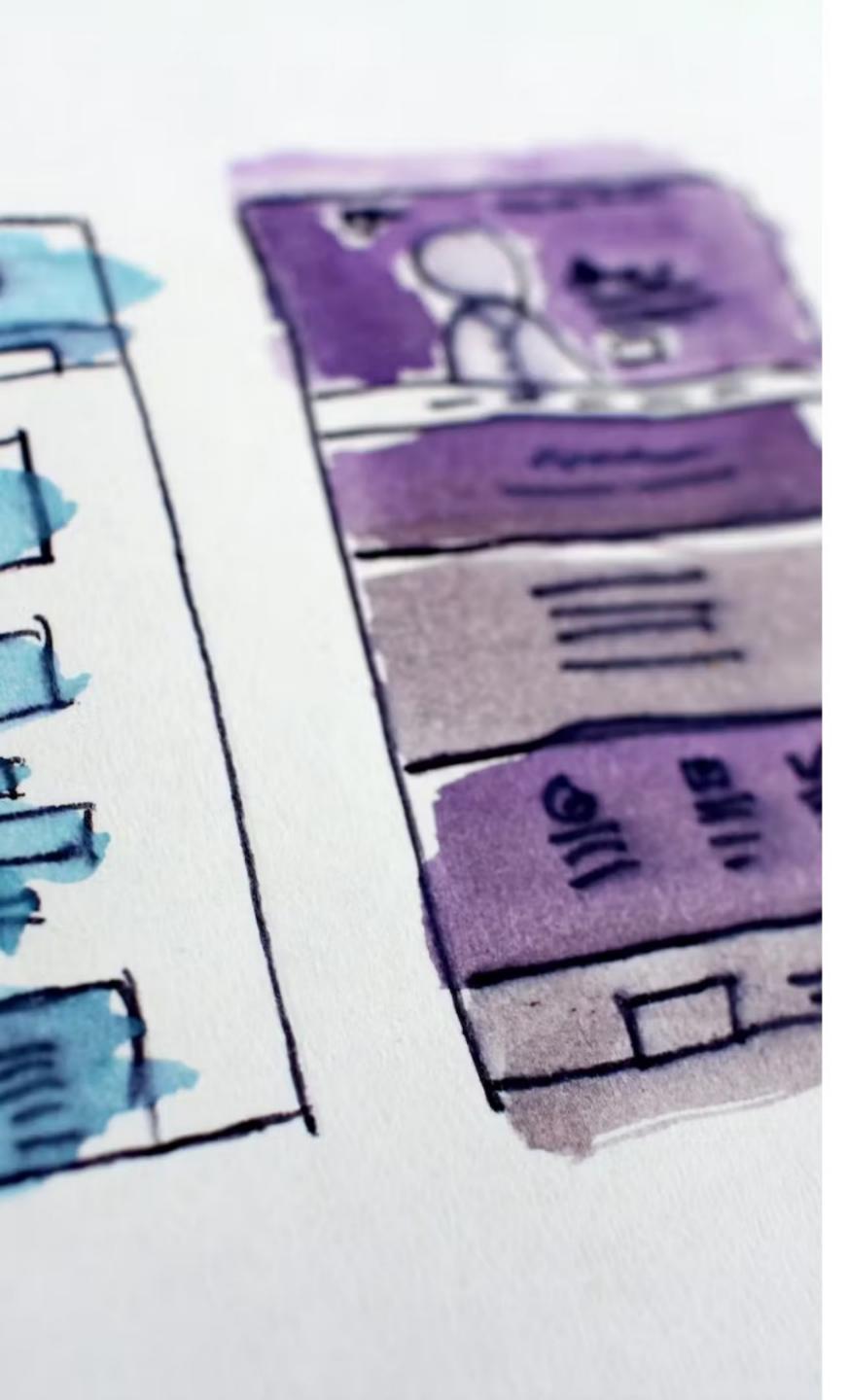
# Instructions



# Type your career / interest areas 39 Responses







# What do you expect from this course? 43 Responses

```
understanding nlp
                    create projects
                                      ciencia de datos - ai
                                                           develop as programmer
                                understand how nlp works
              make fun projects
                                                make money
                                job opportunities
                                                    learn about transformers
                        professional skills
    transformer models
                                                             experience
                             prepare for the future
            sound analysis
                                                                discovering nlp
              make a company knowledge
                                                                      strengthen my cv
                                                                     make nlp
language recognition
                      make my own projects
              math
                        improve my knowledge
        understand ai
         deliver a cool project
                                 get experience
                                           research disertation
                     language patterns
                                                      language analysis
                               apply knowledge
                                     aplicar learning machine
                        natural language process
```





### What do you think NLP means?

### 14 Responses

Ho	s to do something with a search engine?Or probabilistic
ро	tern unification of words.

Language Understanding and generation

Emulation of a real human response.

Recognize patterns on language

Making easier for a computer to understand humans and viceversa

Natural language processin

Understanding and outputing human language

Replicate human thinking process

semi supervised learning





### What do you think NLP means?

### 14 Responses

Has to do with to simulate the way humans express or communicate

Emulation of human comunication interactions

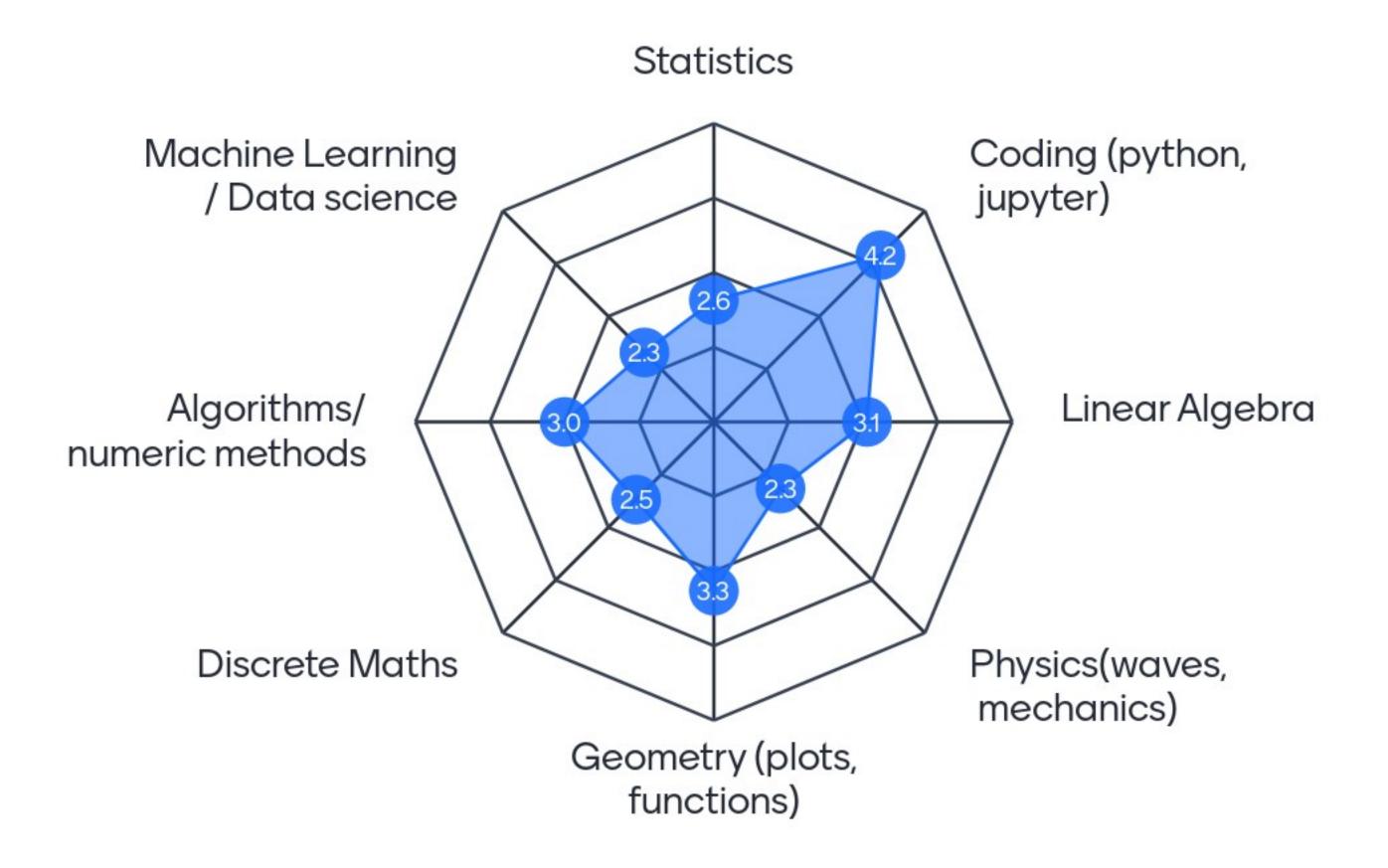
Natural language processing

NLP stands for Natural Language Processing. Considering the previous definition, we can spect that NLP enables computers to understand in a better way how humans communicate for better computing resu Trying to extract sentiments, ideas, etc. from human language





## Choose your condifence level on each area



### Evaluation

- → Weekly Quizzes (each friday, individually) 5% total
- Notebook evaluation (at the end, by teams) 5% total
- → Evaluation( at the end, individually) 2% total
- Weekly quizzes + Notebook+Evaluation = 12% (Module 5)

Actividades	Ponderacion
Module 1. Python Libraries	10%
Module 2. Statistics for Data Science	10%
Module 3. Machine Learning	10%
Module 4 Big Data and AWS	10%
Module 5. Natural Language Processing 1	10%
Evaluation Module	10%
Total	60%

Evidencia	Ponderacion
Presentación argumentativa	40%

# Index 1st part

- 1. Sound and Waveforms
- 2. Sound characteristics
- 3. Analog and digital Signals
- 4. Time Domain Features for ML

### Index 2nd part

- 1. Corpus creation
- 2. Tokenizers /N-grams
- 3. PCA
- 4. Word2vec
- 5. Deep Learning
- 6. Transformers



### Notes

Wednesday, August 30th class will be virtual Friday, August 1st class to be defined Quiz will be avialable