# Ana Valeria Gonzalez

# PhD student in Natural Language Processing/ Data Scientist at BotXO

email: ana@di.ku.dk / ag@botxo.co

#### **Education**

#### University of Copenhagen, Denmark

2018 - 2021

PhD in Natural Language Processing

Supervisor: Anders Søgaard and Isabelle Augenstein Project: Building emotionally Intelligent dialogue systems

Project focuses on improving the performance of dialogue systems in low resource language as well as in different domains, with an emphasis on improving the detection and response to emotion.

# University of Copenhagen, Denmark

2015-2017

M. Sc in IT and Cognition Supervisor: Anders Søgaard

Thesis: Using Gaze to Predict Text Readability: The effects of Cognitive Data and Multi-task learning on Automatic Readability Assessment

Project involved the use of deep learning and multi-task learning in order to improve the prediction of text difficulty

# Universidad Abierta y a Distancia, Mexico

2016-2021

B. Sc in Applied Mathematics

## University of California, San Diego (UCSD)

2011-2015

B. Sc in Cognitive Science Specialization in Neuroscience

- ► Language cognition, Morphology
- > Computational Neuroscience, Mirror Neuron Systems
- ➤ MATLAB, JAVA, C++

#### Work Data Scientist

2018 - Current

# Experience

BotXO

- > working on the integration of NLP methods into chatbots aimed for business services.
- Partnership with University of Copenhagen

#### **Short-Term Research Assistant**

Oct 2017 - Dec 2017

University of Copenhagen, Department of Computer Science

- ➤ Work on many projects involving the use of Machine learning/Deep Learning algorithms for Natural Language Processing research. Projects include:
  - Unsupervised Learning
  - Cross-lingual grammatical error detection
  - > Evaluation of cross-lingual word embeddings

## Data analyst and Research Assistant

July 2016 - September 2017

BRATLab

University of Copenhagen

Data analysis at Brain Rehabilitation, Advanced Technology and Learning lab, a Cognitive Neuroscience laboratory at KU. Primarily involved in the extraction algorithms and the analysis of eye tracking data with the focus on studying children's reading disabilities.

**Data Scientist** 

Jan 2016 – July 2016

Fluency ApS

Predominantly worked with large amounts of text data applying machine learning methods for the task of document classification.

## **Undergraduate Research Assistant**

Language and Cognition Lab, UCSD

Sept 2013 - June 2014

Worked on various projects dealing with language and cognition, specifically bilinguals in English and Spanish. We studied the cognitive costs of switching between the two languages, as well as differences processing for each language. My duties involved mainly the analysis of behavioral data as well as data collected electronically (through the use of tools like mechanical turk).

# Teaching Experience

## **Teaching Assistant**

COGS1: Introduction to Cognitive Science

Spring Quarter, 2014

Supervisor, Dr. Benjamin Amsel

UCSD

Duties involved assisting lectures, offering office hours for students to come and ask material related questions, writing test questions and preparing a weekly discussion lecture.

## **Science Demonstrator**

Reuben H. Fleet Science Center, San Diego, CA

December 2014 – August 2015

> Performed science demonstrations for children, primary school groups and high school students, in order to help them become interested in Science. Some demonstrations outside the museum and in assisting in other exhibits.

#### **Education and Volunteer Programs Assistant**

Birch Aquarium, San Diego, CA

March 2013 - July 2014

Administrative position that also involved training volunteers on basic marine biology knowledge related to the research done at Scripps Institution of Oceanography

Conference
Papers

Ana V. Gonzalez-Garduño and Anders Søgaard . 2017. Learning to predict readability using gaze data from natives and learners of English. (Accepted submission at the 32<sup>nd</sup> AAAI Conference)

Ana V. Gonzalez-Garduño and Anders Søgaard . 2017. *Using Gaze to Predict Text Readability. 2th Workshop on Innovative Use of NLP for Building Educational Applications, EMNLP. Copenhagen, Denmark.* http://www.aclweb.org/anthology/W/W17/W17-5050.pdf

Ana V. Gonzalez-Garduño and Anders Søgaard . 2017. Using Gaze to Predict Text Readability: A Multi Task Learning Approach. 19th European Conference on Eye Movements. Poster session. Wuppertal, Germany.

# Computer Skills

Linux, Python, Javascript, CSS, Latex, HTML, MATLAB, SQL, Tableau Experience with machine learning/deep learning using Keras

# Language Skills

Fluent level: English, Spanish. Intermediate level: Danish (B1), Portuguese(B2)