

# Albert Manuel Orozco Camacho

Data Scientist / Teacher Assistant

"La science n'a pas de patrie, parce que le savoir est le patrimoine de l'humanité" - Louis Pasteur

I have a broad spectrum of interests in AI: from the theoretical foundations of deep learning to applications regarding NLP, chatbots, and social networks. My current goals are directed towards enhancing how humans and machines communicate and understand themselves, as well as providing elegant models for such tasks.

#### Education

2019-2021 Master in Science Degree, McGill University, Montréal, QC, Canada, To start on September 2019 .

Computer Science

2012-2017 Bachelor in Science Degree, Facultad de Ciencias, Universidad Nacional Autónoma de México (UNAM), Mexico City, GPA – 8.82 / 10 .

Computer Science

2009–2012 High School, Prepa Tec de Monterrey, Campus Guadalajara, Guadalajara, Jalisco, Mexico, GPA - 91 / 100. Secondary School Certificate

#### Skills

#### Programming Languages and Software known:

- Python - Java - C - Haskell

- MatLab - Prolog

- C++ - NumPy

- SciPy - R - Sci-kit Learn

- NLTK - Matplotlib - OpenCV - PostgreSQL

Additional Software

- LATEX - GNU Emacs

356-404 Río Mixcoac Ave. - 03240 Mexico City, Mexico 

- spaCv

- REST APIs

- Flask, Django

- Git version control system

- IBM Watson

- Keras

- Apache Spark

- Amazon AWS

- Tensorflow

- ScraPv

- MongoDB

- Javascript

- Bash (Shell)

- Hadoop

- Google Cloud

#### Personal Skills

- Ability to tackle complex problems.
- Ability to abstract the most important features of a given task.
- Critical thinking.
- Ability to work under pressure
- Provide efficient programming solutions to any problem.

## Areas of Interest

- Computer Science
- Artificial Intelligence
- Machine Learning
- Data Science
- Functional Programming
- Automated Reasoning
- Programming Language Theory
- Theory of Computation
- Robotics

## Experience

- 2017- **Data Scientist at Mariachi IO**, *Paid Job*, I joined *Mariachi IO* to help out in the solution of several tasks that require NLP, machine learning, and image processing, I am currently building a computer vision application using classic OpenCV-based algorithms and state-of-the art deep learning tools.
- 2017- **Data Science Consultant at Fractal Abogados**, *Paid Job*, *Fractal Abogados* is a startup whose purpose is to provide feasible IT (and AI) solutions into today's Mexican (and Latin American) law system, I work as an AI consultant in Fractal's signature project: a legal chatbot. *Max* is a Facebook Messenger based virtual assistant, powered by IBM Watson that automates the most common legal advices in Mexico.

- 2016- Teacher assistant the UNAM's Facultad de Ciencias, Paid Job, Taught Machine Learning and Pattern Recognition and Automata and Formal Languages during 2017. Taught the Programming Languages during the 2016 Spring Semester. Taught Discrete Structures Lab and Computational Logic during the 2016 Fall Semester. All courses are offered for the undergraduate curriculum, I will be teaching Computational Logic again this Spring 2018 semester.
- 2013-2015 **Student / researcher at UNAM's** *Grupo Golem*, *Extra-curricular activity*, Grupo Golem is a research group at IIMAS (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas) whose main goal is to model the cognitive interaction between a humans and computer; all the research is unified in a service robot that competes internationally in the RoboCup@Home competition; the group's website is this one, Grupo Golem's leader is Dr Luis A. Pineda.
- 2012-2013 **Student / researcher at UNAM's IIMAS's Computer Science Department**, *Extra-curricular activity*, I work alongside Dr Ivan V. Meza with speech recognizers, and replicated an experiment in which a robot learns from a human teacher how to transform babblings to simple English words.

#### **Publications**

2016 LIPN-IIMAS at SemEval-2016 Task 1: Random Forest Regression Experiments on Align-and-Differentiate and Word Embeddings penalizing strategies.

Lightgow, O., Meza, I., Orozco, A., Garcia-Flores, J. y Buscaldi, D. Proceedings of the 10th International Workshop on Semantic Evaluation (SemEval-2016) pp. 726-731.

2014 The Golem Team, RoboCup@Home 2014, Technical Report.
Pineda, L., Rascon, C., Fuentes, G., Estrada, V., Rodriguez, A., Meza, I., Ortega, H., Reyes, M., Peña, M., Duran, J., Campos, E., Chimal, S. y Orozco, A. DCC, IIMAS, UNAM pp. 8.

# Theses (Final Projects)

BSc. Automatic Generation of Internet Memes using a Deep Neural Network, Supervised by Dr Ivan V. Meza.
Faculty of Sciences, UNAM. pp. 111.

### **Talks**

2017 Talk delivered at UNAM Google Developer Group's meetup and IPN ES-COM, Outreach talk, I spoke about my undergraduate thesis project and the lessons I learned during the coding part.

The slides are available in https://alorozco53.github.io/talks/lessons.html

2017 Talk delivered at CoLiCo held at UNAM Facultad de Filosofía y Letras, Outreach talk, I spoke about deep learning applications to NLP, from a linguistic perspective, CoLiCo stands for "Computational Linguistics Colloquium" and was organized by UNAM Linguistic Engineering Group.

The slides are available in https://alorozco53.github.io/talks/onto memes.html

2017 In March, I spoke at the "Bots LATAM" community, whose goal is to gather the most enthusiastic people in AI and Chatbots together in Mexico City, Outreach talk, The talk was given in Spanish and its title was "Implementando ojos a tu chatbot".

The slides are available in https://alorozco53.github.io/talks/eyes\_on\_bot.html

# Other Activites / Workshops

- 2018 Poster to present: "Challenges in Automatic Meme Generation Using Deep Neural Networks", Conference presentation, The poster is related to what I've been doing to my bachelor's thesis project lately, It will be presented at LatinX in Al workshop, held at NIPS in Montréal, Canada.
- 2018 Poster to present: "Challenges in Automatic Meme Generation Using Deep Neural Networks", Conference presentation, The same poster as for LatinX in Al 2018 workshop, It will be part of the third Self-Organizing Conference on Machine Learning (SOCML), held at the Google offices in Toronto, Canada; it is organized by Ian Goodfellow.
- 2017 **Poster speaker at SOCML**, *Conference presentation*, I presented a poster at the second Self-Organizing Conference on Machine Learning, held at the Google offices located in Sunnyvale, CA, USA. The poster was about my undergraduate thesis project (deep meme captioning). The conference was organized by Ian Goodfellow, The poster can be visualized here.
- 2017 Attended a NLP hackathon (*Gilkatón*) organized by UNAM's Grupo de Ingeniería Lingüística, *Hackathon*, Held in Mexico City at the Engineering Tower, UNAM, Alongside two linguists, we created a program to extract relevant information from a corpus of legal documents.
  - The code developed can be found here: https://github.com/alorozco53/Gilkaton.
- 2017 Attended an Al-Chatbot Hackathon organized by Synx and Recime, Hackathon, Held in Tlaquepaque, Jalisco, Mexico at ITESO.
  Alongside three friends, I helped developing a NLP module for a chatbot that tracks the user's food quality and exercising activites.
- 2017 Volunteer in Technovation Challenge, Volunteering, This event's focus is to encourage programming and entrepreneurship in Secondary School girls. During one of the regional knockout events, I helped out with logistic issues; it was held during May at Mexico City.
- 2016 Participated in the second annual "Jakatón" (computational linguistics hackathon), *Hackathon*, Held in Cholula, Puebla, Mexico.
- Attended the 2015 Jelinek Summer School on Human Language Technologies, Summer school, It was a 2-week introductory summer school on cutting-edge topics about speech recognition, machine learning, and natural language processing, It was held at the University of Washington, Seattle.

  Received a scholarship from The North American Chapter of the Association for Computational Linguistics (NAACL) to attend the summer school.
- 2015 **Participated in Mexico's first computational linguistics hackathon**, *Hackathon*, I teamed up with a friend of mine to be finalists and obtained an honor's award.

# Languages

Spanish Mothertongue

English Bilingual proficiency Completely fluent (IELTS)

French Full professional proficiency

Fluency mostly written (DELF B1)

#### Interests

- Science-fiction

- Soccer

- Science (in general)

- Robotics

- American football

- Exercising

## Personal Details

Date of birth July 16th, 1994

Website https://alorozco53.github.io/ GitHub page https://github.com/alorozco53

Linkedin page https://www.linkedin.com/in/albert-orozco-camacho-ba315b3a/

Languages Spanish, English, French

Permanent 356-404 Río Mixcoac Ave. 03240 Mexico City, Mexico

address

Mobile No. (+52 1) 55 3262 1338