Albert M. Orozco Camacho

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.

Personal Details

Date of birth	July 16th, 1994
Website	https://alorozco53.github.io/
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Areas of Interest

- Network Science
- Natural Language Processing
- Representation Learning
- Deep Learning for Graphs
- Reinforcement Learning

Education

2019– **Master of Science Degree**, *McGill University*, Montréal, Canada, Supervised by Prof Reihaneh Rabbany; *Current GPA: 3.93/4.0*.
Computer Science

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

2015 **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.

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

Theses

BSc. **Automatic Generation of Internet Memes using a Deep Neural Network**. Faculty of Sciences, UNAM. pp. 111.

Publications

2020 **ComplexDataLab at W-NUT 2020 Task 2: Detecting Informative COVID-19 Tweets by Attending over Linked Documents**.
Kellin Pelrine, Jacob Danovitch, Albert Orozco Camacho, and Reihaneh Rabbany Proceedings of the Sixth Workshop on Noisy User-generated Text (W-NUT 2020) pp. 434–439

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., and 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., and Orozco, A. DCC, IIMAS, UNAM pp. 8.

Research Projects

2019– **Dynamic Link Prediction for Troll Activity Tracking**, *Individual Research*, supervised by Reihaneh Rabbany, Using state-of-the-art graph embedding techniques, I am approaching the problem of modelling the activity of fake accounts/Twitter trolls from a link prediction perspective. Furthermore, results may help to conclude on likely strategies for the expansion of these accounts towards a common goal.
We use the *Twitter Election Integrity* dataset.

2020 **Online Knowledge Graph Learning**, *Team Member*, Collaborating with Nishant Mishra, Paniz Bertsch.

2019 **Extending Question Answering to Conversations**, *Team Leader*, Collaborating with Akshatha Arodi, Yao Jiang.

2019 **FakeNews Detection**, *ML Algorithm Research Engineer (?)*, Collaborating with Jackie Cheung, Reihaneh Rabbany, Meng Cao, Junghao Wang, Mila team at the Canadian Leader's Prize Competition for fake news detection.

Workshops

2020 **Poster speaker at LatinX in AI @ NeurIPS**, *Conference presentation*, I will present a poster at LatinX in AI workshop, The workshop's main goal is to provide a common framework for Latin American AI researchers.

2018 **Poster speaker at LatinX in AI @ NeurIPS**, *Conference presentation*, I presented a poster at first ever LatinX in AI workshop, held in Montréal, QC, Canada, The workshop's main goal is to provide a common framework for Latin American AI researchers.

2018 **Poster speaker at SOCML 2018**, *Conference presentation*, I will present a poster at the third Self-Organizing Conference on Machine Learning. It will happen at the Google offices located in Toronto, ON, Canada, The poster will mainly cover advances and challenges on meme captioning using deep neural networks.

2017 **Poster speaker at SOCML 2017**, *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 **Invited speaker 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

Talks

2017 **Invited speaker at UNAM Google Developer Group's meetup and IPN ESCOM**, *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 **In March, I was invited to talk at "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

Internships and Professional Experience

2019- **Research Student at Mila - Québec AI Institute**, *Supervised by Prof Reihaneh Rabbany*, Working on the intersection of *network science*, *NLP* and within the *graph representation learning* scope.

2020- **Teacher Assistant at McGill University**, *Part of the teaching staff for courses on* Programming Languages and their Paradigms, Theory of Computation, *and* Logic and Computability.

2020 **Data Science Intern at UEAT**, *Paid Job*, Consultant-style internship where I helped to design the company's catering knowledge base using web ontologies and state-of-the-art graph representation learning, Sponsored by Mitacs.

2017-2019 **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.

2017-2019 **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.

2016-2018 **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 speeech recognizers, and replicated an experiment in which a robot learns from a human teacher how to transform babblings to simple English words.

Other Activites

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 AI-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.

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)*

Skills

Programming Languages and Software known:

- Java
- C
- MatLab
- C++
- SciPy
- Sci-kit Learn
- NLTK
- OpenCV
- Python
- Haskell
- Prolog
- NumPy
- R
- spaCy
- Matplotlib
- PostgreSQL

Additional Software

- LaTeX
- Microsoft Office
- CMU Sphinx voice recognizer
- Git version control system
- IBM Watson
- Keras
- Amazon AWS
- GNU Emacs
- Tensorflow
- ScraPy
- Theano
- Javascript
- Bash (Shell)
- 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.

Hobbies

- Science (in general)
- Soccer
- Chess
- Dancing
- Running
- American football
- Music
- Exercising

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