Vladimir **Araujo Vásquez**

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I am an Electronics Engineer and Ph.D. student in Computer Science. My main research interest is Deep Learning for Natural Language Processing, specifically on how to extend current approaches with mechanisms inspired by human language processing. I firmly believe that the use of Artificial Intelligence will be a benefit for various aspects of society.

EDUCATION

Present 2018	 Ph.D. in Engineering Sciences, Pontificia Universidad Católica, Chile Mention: Computer Science Research Title: Prediction and Integration for Natural Language Representation
2017 2015	 M.Sc. in Electronics Engineering, PONTIFICIA UNIVERSIDAD JAVERIANA, Colombia Mention: Intelligent Robotics (Cum laude) Thesis Title: SiREM Robotic System to Train Working Memory
2015 2009	 B.Eng. in Electronics Engineering, UNIVERSIDAD POLITÉCNICA SALESIANA, Ecuador > Mention: Automation (Second best graduate) > Thesis Title: Controlling a humanoid robot in 3D space using the kinect sensor

PROJECTS

EXPLAINABLE ARTIFICIAL INTELLIGENCE

2018 - PRESENT

This Emblematic Project, funded by the Millennium Institute Foundational Research on Data (IMFD), has the objective of developing evolved AI techniques, advancing from systems based on memorizing patterns to one based on the semantic comprehension of these patterns and the learning of abstractions or procedures that promote high level reasoning.

Interpretability Explanability Deep Learning

SIREM: ROBOTIC SYSTEM TO TRAIN WORKING MEMORY

2016 - 2017

PUJ Repository

A robotic system was developed to give a novel way to train the working memory, expecting a better result than classic video games to improve students' cognitive abilities. It consists of a robotic platform controlled by artificial intelligence to develop a memory game. Project carried out at the Pontificia Universidad Javeriana.

Serious Games Educational Robotics Machine Learning



EXPERIENCE

Present August 2018

Researcher, MILLENNIUM INSTITUTE FOUNDATIONAL RESEARCH ON DATA (IMFD), Chile

- > Research on topics related to fake news and social networks
- > Development of interpretable models

PyTorch | Python | Natural Language Processing | Graph Networks

Present May 2020

Lecturer, Pontificia Universidad Católica, Chile

Lecturer of the AI certification program, in charge of the classes of:

- > Natural Language Processing
- > Video Analysis

PyTorch Python Natural Language Processing Computer Vision

Present March 2019

Teaching Assistant, Pontificia Universidad Católica, Chile

Assitant of the classes of:

- > Recommender Systems (2020-2)
- > Machine Learning (2019-2)
- > Cognitive Robotics (2019-1)

Python Keras PyTorch Computer Vision Information Retrieval

Present January 2014

Co-Funder, AV ELECTRONICS, Ecuador

- > Project manager
- > Import manager

Electronics Management

July 2018 April 2015

Lecturer, Instituto Técnologico CEMLAD, Ecuador

Lecturer of the electronics technology career, in charge of:

- > Virtual and face-to-face lectures of microcontrollers, analog and digital electronics
- > Organization of scheduled activities

Electronics Microcontrollers Programming

March 2015 January 2015

Laboratory Assistant, Universidad Politécnica Salesiana, Ecuador

Assitant at the FabLab of the University. In charge of:

- > Guide laboratory practices
- > Design and manufacture of printed circuit boards

FabLab PCB Microcontrollers

December 2018 April 2014

Instructor, Mastoosfe, Ecuador

Lecturer of technical courses:

- > Introduction to programming
- > 00P Java C++





Spanish English



- > Hard-wroking
- > Patient
- > Automous

FUNDING AND AWARDS

- Scholarship to attend the International Meeting on Artificial Intelligence and its Applications (RIIAA 2020)
- 2020 **Scholarship** for attending the Lisbon Machine Learning School (LxMLS 2020)
- 2020 WiNLP's grant for attending ACL20
- 2020 ANID scholarship for doctoral studies in Chile
- 2019 Scholarship to attend the Latin American Meeting in Artificial Intelligence (Khipu19)
- 2019 ACM SIGCHI Gary Marsden fund award to attend RecSys19
- 2019 VRI **scholarship** for doctoral studies in Chile
- 2018 IMFD **scholarship** for doctoral studies in Chile
- 2017 **Scholarship** for an internship at RUND University of Russia
- 2017 Cum laude **distinction** in Master's studies
- 2017 **Distinction** awarded to the best Master's thesis
- 2015 ICETEX scholarship for Master's studies in Colombia
- 2015 Award for the second best graduate in undergraduate studies

PUBLICATIONS

- > Villa Andrés, Vladimir Araujo, Francisca Cattan, and Denis Parra (2020). "Interpretable Contextual Team-aware Item Recommendation: Application in Multiplayer Online Battle Arena Game". In: Proceedings of the 14 th ACM Conference on Recommender Systems. RecSys'20. Virtual, Brazil: ACM.
- > Araujo Vladimir, Andrés Carvallo, and Denis Parra (2020). "Advesarial Evaluation of BERT for Biomedical Named Entity Recognition". In: Proceedings of the 2020 Workshop on Widening NLP. Association for Computational Linguistics.
- > Cerda-Mardini Patricio, Vladimir Araujo, and Alvaro Soto (2020). "Translating Natural Language Instructions for Behavioral Robot Navigation with a Multi-Head Attention Mechanism". In: Proceedings of the 2020 Workshop on Widening NLP. Association for Computational Linguistics
- > Aspillaga Carlos, Andrés Carvallo, and Vladimir Araujo (2020). "Stress Test Evaluation of Transformer-based Models in Natural Language Understanding Tasks". In: Proceedings of The 12th Language Resources and Evaluation Conference. Marseille, France: European Language Resources Association, pp.1882–1894.
- > Araujo Vladimir, Felipe Rios, and Denis Parra (2019). "Data Mining for Item Recommendation in MOBA Games". In: Proceedings of the 13 th ACM Conference on Recommender Systems. RecSys'19. Copenhagen, Denmark: ACM, pp.393–397.
- > Araujo Vladimir, Diego Mendez, and Alejandra Gonzalez (2019). "A Novel Approach to Working Memory Training Based on Robotics and Al" in: Information 10.11,p.350.
- > Araujo Vladimir, Alejandra Gonzalez, and Diego Mendez (2018). "Dynamic Difficulty Adjustment for a Memory Game". In: Communications in Computer and Information Science. Springer International Publishing



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