# CHRISTIAN DAYAN ARCOS GORDILLO

Machine Learning Research.

# PROFILE

I am a machine learning research with background in speech recognition and computer vision. I obtained my Ph.D degree from PUC-Rio and became a postdoctoral research at UIS-Colombia afterwards. I lead the machine learning group at vozy. My goal is to build cognitive systems capable of performing complex tasks in complex environments,

# FORMAL EDUCATION/ DEGREE

## Pontifical Catholic University of Rio de Janeiro, Brazil

February 2014 – April 2018 Degree: Ph.D. in Electronic Engineering Enhancement and continuous speech recognition in adverse environments

#### Pontifical Catholic University of Rio de Janeiro, Brazil

February 2011 – November 2013 Degree: MSc Electronic Engineering Continuous Speech Recognition with MFCC and PNCC features and robustness techniques Wavelet Denoising, Histogram Mapping, Spectral Subtraction and Filter with Neural Networks

### <u>Mariana University. Colombia</u>

August 2018 – December 2018 Degree: Pedagogy and institutional identity

## Francisco de Paula Santander University. Colombia

January 2005 – February 2011 Degree: Electronic engineer Supervise and support in mechatronic automation projects of the International Clean Production Center Lope from SENA

# PROFESSIONAL EXPERIENCE

# VOZY

#### Machine Learning Engineer Lead

September 2021 - present Lead and research the way in which conversational agents generate a better conversation flow, by improving the acoustic and language models used for the NLP, STT and TTS architectures. Technologies used: Python, Bash-script, Keras, Pytorch, Docker, Gitlab

# VOZY

#### Machine Learning Engineer

September 2020 – September 2021 Development and research in the area of speech recognition and audio processing for new and challenging environments using advanced machine learning techniques. Technologies used: Python, Bash-script, Keras, Pytorch, Docker.

# UNIVERSIDAD INDUSRIAL DE SANTANDER

#### PostDoctoral Research Fellow

One year of research, May 2020 to May 2021 Development of an optical-computational system for the fusion of depth and hyperspectral images using deep learning techniques and their application in the classification of citrus by its level of maturity. Technologies used: Python, keras, Pytorch, Optical software, Optical hardware.

o **DETAILS** o Medellin, Colombia

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## o LINKS o

<u>CvLAC</u> <u>Linkedin</u> www.christianarcos.co

# o SKILLS o

Machine Learning

Signal Processing

Bash

Linux OS (command Line)

Python

Matlab

GIT/Git hub

R

JavaScript

# o LANGUAGES o

Spanish

Portuguese

English

## o AWARDS o

Best Paper Award 2017 World Academy of Science, Engeneering and Technology

PhD scholarship, Student Grade 10 Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro – FAPERJ

# AGM

System and Development Analyst Mar 2013 – Dec 2013

Researched new technologies for speech recognition. Responsible for the development of software to process speech. Developed a speech enhancement system in Python for an integration with an automatic recognition unit. Recorded audio to create acoustic models. Built a Python character classifier to elaborate language models. In charge of the test approach, test scenario and test plan.

Technologies used: Python.

### ABMTENC

Technical Assistant and Software Support Feb 2012 – Feb 2013

Provided software and hardware maintenance. Diagnosis and correction of errors found during the use of the programs. Adapt the system to changes that may occur in hardware, operating system, peripherals and work tools

Technologies used: LabView, Matlab, OS Linuix.

## <u>SENA</u>

Engineering Assistant Jan 2010 – Jan 2011

Provided software and hardware maintenance. Was adviser of mechatronic automation projects. Designed and implemented electronic telemetry systems. Controlled networks and communications systems

Technologies used: C++, LabView, XBee, Bash(Unix Shell), Proteus.

# TEACHING EXPERIENCE

#### **Private University**

Teacher Sep 2018 – Nov 2018

Taught about artificial intelligence and signal processing to students.

#### Private University

Research Professor Aug 2018 – Dec 2018

Researched about neural networks applied to civil engineering. Professor of Numerical Methods, Static and Dynamic, and elective writing. Also developed the web of the civil engineering program.



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## PUBLICATIONS AND CONFERENCE PRESENTATIONS

- Journals: 2 refereed journal articles.
- Conference Presentations: 9 refereed international conference papers.
- Invited Lectures: 2 invited lectures at universities in Colombia and Ecuador.