Felipe Romero

MSc Biomedical Engineering

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Programming Skills
Python ★★★★★
Matlab ★★★★☆
C/C++ ★★★☆☆

Deep Learning Frameworks
PyTorch ★★★★☆
TensorFlow ★★★★☆
Caffe ★★★★☆

OS Skills
GNU/Linux ★★★★★
MacOS ★★★★★
Windows ★★★★★

Languages
Spanish ★★★★★
English ★★★★☆
Portuguese ★★☆☆☆

Summary

I am a second year PhD student in Engineering at Universidad de Los Andes. My interests are on the field of artificial intelligence and computer vision. My research is focused on automated facial expression recognition and, more broadly, on affective computing. With the guidance of Prof. Pablo Arbelaez, we have been awarded three consecutive times by the Google Research Awards for Latin America with our project "Learning Dynamic Action Units for Three-dimensional Facial Expression Recognition".

I am particularly interested in leveraging deep learning techniques, generative adversarial networks, and visual reasoning for a better automated facial expression understanding.

Experience

07/18 - Now   **Academic Research Guest**   ETH, Zurich, Switzerland
Computer Vision Lab - Under the guidance of Prof. Radu Timofte.

01/18 - 06/18   **Doctorate Teaching Assistant**   Universidad de Los Andes, Bogotá, Colombia
Laboratory instructor for graduate students: Computer vision. 24 students in charge.

01/16 - 06/16   **Graduate Research Assistant**   Universidad de Los Andes, Bogotá, Colombia
Project on Facial Action Unit Detection with Convolutional Neural Networks.

07/14 - 12/15   **Graduate Teaching Assistant**   Universidad de Los Andes, Bogotá, Colombia
Laboratory instructor of Image processing. 80 students in charge.
Laboratory instructor of Signal processing. 65 students in charge.
Laboratory instructor of Bio-instrumentation. 40 students in charge.
Laboratory instructor of Scientific programming. 40 students in charge.

Education

2016 - Now   **PhD in Engineering**   Universidad de los Andes, Colombia
Computer Vision
Main Subjects: Affective Computing, Facial Expression Recognition, Deep Learning.
Advisor: Prof. Pablo Arbeláez.

2014 - 2016   **MSc in Biomedical Engineering**   Universidad de Los Andes, Colombia
Computer Vision.
Main Subjects: Affective Computing, Facial Expression Recognition, Deep Learning, Machine Learning.
Thesis: "Facial Action Unit Detection with Convolutional Neural Networks".

2007 - 2013   **BSc in BioEngineering**   Universidad de Antioquia, Colombia
Main subjects: Clinical Engineering, Digital and Analogical Electronic.

Awards

08/2017	**Google's Research Awards for Latin America** Extension	Machine Learning
08/2016	**Google's Research Awards for Latin America** Extension	Machine Learning
09/2015	**Google's Research Awards for Latin America** *Project proposal: "Learning Dynamic Action Units for Three-Dimensional Facial Expression Recognition"*	Machine Learning

Publications

Romero, A., León, J., & Arbeláez, P. (2017)
Multi-View Dynamic Facial Action Unit Detection.
arXiv preprint arXiv:1704.07863 (Under review for IVCJ).

Romero, A., & Castilla, A. (2016)
Real-time detection of the open/closed state of eyes based on Android,
Proceedings of the 8th International Seminar on Biomedical Engineering (SIB 2016), Bogotá, Colombia, Abril 20-22, 2016

Romero, A. (2016)
Emotion recognition via deep learning.
Proceedings of the 8th International Seminar on Biomedical Engineering (SIB 2016), Bogotá, Colombia, Abril 20-22, 2016

Andrés Felipe Romero Vergara