Dillam Jossue Diaz Romero

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Summary

- International student pursuing a Master's degree in Computing Science
- Student research working on Emotion detection and activity detection with Deep neural networks based on Head movements and Biosignals(EEG, EOG, EMG)
- Passionate about developing technology to improve the lives of older adults

Education

University of Alberta

M. Sc. in Computing Science

September 2017 – Present

- Thesis project: Measuring engagement and cognitive function by using biosignal and wearable devices
- Deep learning and visual recognition
- Activity recognition using Machine learning
- Reinforcement Learning for AI
- Medical Imaging
- Internet of things

University of Rosario + Colombian School of Engineering (Based on Electrical Eng.)

B.Sc. in Biomedical Engineering

September 2011 – March 2017

- Graduated with honours (ranked 10th out of 20,000 students)
- Completed international research program in partnership with the University of Alberta
- Completed exchange program at Bournemouth and Poole college

Publications + Presentations

AI Summer Program Talk

"Introduction to the internet of things and Real applications" (Presentation)

July 2018

IEEE International Conference on Pervasive Computing and Communications

"Activity Classification in Independent Living Environment with Jins MEME Eyewear" (Conference Paper)

March 2018

Iberoamerican Congress in Assistive Technology

"Toolkits for Assessment and Intervention of the Cognitive Function in Older with Dementia" (Presentation)

November 2017

Scientific and Educational Meeting of the Canadian Association of Gerontology

"Measuring Emotions Using Emotiv Epoc+ While Playing Serious Games" (Presentation)

October 2017

AGE-WELL Annual Conference
"Activity Classification in Independent Living Environment with Jins MEME Eyewear" (Presentation)
October 2017

Work Experience

University of Alberta
Research and Teaching Assistant, Department of Computing Science
January 2017 – Present
- Performed and analyzed bio-signals (e.g. EMG, EEG, EOG, speech recognition) collected from wearable sensors
- Coordinated sensor fusion projects
- Mentored young adults in programming and building apps
- Worked within a team to explore and improve signal processing methods
- Implemented Deep learning and Machine learning models for human activity recognition

Laminados JAB (Steel Production Company)
Operations Manager
July – December 2016
- Coordinated programming, design and engineering on steel production
- Planned projects and performed risk analysis and quality control
- Analyze project requests from management to identify project goals and objectives
- Autoencoder control to learn to learn efficient data codings in an unsupervised manner.

Cali Café
Server & Computer Systems Designer
January – June 2015
- Developed app to automate cashier system
- Automated iBeacon ID's & Deployment
- Delivered exceptional, friendly and fast service
- Answered customer questions about menu selections
- Developed excellent interpersonal skills

Computer skills
- ROS, Microframework
- Unity, Blender
- Matlab, C++, Python, Java and C#
- SQL, JSON

Research Interests
- Artificial Intelligence (AI) and Reinforcement Learning (RL)
- Computer Vision and Human-computer Interaction
- Biomedical Imaging and Medical Image Processing
- Autonomous Navigation System (ANS)
- Application of Deep Learning in the domain of Signal Processing
- Internet of things