Dillam Jossue Diaz Romero

Resume

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Summary

- Student pursuing a Master's degree in Computing Science
- Developed studies investigating the use of wearable sensors and machine learning algorithms for activity recognition in home environments and detection of user engagement and cognitive function while playing rehabilitative games.
- Passionate about developing technology to improve the lives of older adults
- Breadth of professional work experience in research, engineering, project management

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
- Activity recognition using Machine Learning.
- Internet of Things
- Researched bio-signal processing and Machine Learning applications

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

Sensor-enabled Functional-Mobility Assessment: An Exploratory Investigation
the 2019 IEEE 5th World Forum on Internet of Things (WF-IoT 2019)
April 2019

AGE-WELL Annual Conference .
"A practical EOG Device Activity + Emotion" (Scientific talk)
October 2018

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

Work Experience

Bosch Engineering Gmbh
Computer Systems
Germany
January – Present

- Daimler-Bosch autonomous driver project
- Researched self-driving Data Processing and Machine Learning applications
- Testing and benchmarking of Machine Learning algorithms
- Machine Learning Evaluation for connected services
- Data science and cloud computing.

University of Alberta
Research and Teaching Assistant, Department of Computing Science
Canada
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
Colombia
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
- Using autoencoders for machine control.

Computer skills

- ROS, Microframework
- Tensorflow, Keras, Panda
- Matlab, C++, Python, Pyspark
- Java, C#
- SQL, JSON
- 3D Slicer

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