Andrea Apicella

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SUMMARY

Master student in Artificial Intelligence and Industrial Automation at University of Udine.
Double degree student in Information and Communications Engineering at Alpen-Adria-Universität Klagenfurt.
Research in Fall Detection and Image-to-Image translation.
My aim is to solve real world problems through innovative yet accessible technologies.
Able to work in a team and lead people with different backgrounds thanks to the skills acquired by co-managing a Youtube channel and producing branded content for some of the top tech brands.

PROJECTS AND RESEARCH

Alt Frailty: Personalized Health Management of Physical, Mental and Social Frailty in the Elderly
Active Ageing Research Group - University of Udine · March 2021 - Present
· Technical research, development, coordination and data acquisition for the creation of a multimodal fall detection dataset.
· Data synchronization, processing and storage.
· Development and evaluation of Deep Learning models to detect falls in medical elderly care facilities or home environments.
· Writing of a technical report of the work.

Published paper "Deep Neural Networks for Real-Time Remote Fall Detection"
ICPR International Workshops and Challenges. ICPR 2021 · February 2021

Experimental Thesis "Deep Neural Networks for Real-Time Remote Fall Detection"
University of Udine · March 2020 - October 2020
· Developed a Deep Learning based fall detection system which runs in real-time inside the web-browser, even on low powered machines.
· The fall detection system leverages: PoseNet, a pose estimation model implemented in TensorFlow.js, which detects human body keypoints; a custom trained Convolutional Neural Network based on the MobileNetV2 architecture; a custom LSTM network.
· PoseNet and the CNN extract human body keypoints from a live video feed captured with a RGB camera.
· The LSTM analyzes time-series of such keypoints to determine if a fall occurred.
· The proposed architecture reached state-of-the-art results in terms of latency while running inside the web browser on lower-end GPU than other more accurate models proposed in literature.

SKILLS

Deep Learning: Python, Keras, TensorFlow, TensorFlow.js, Pytorch

Web Development: Javascript, HTML5, CSS3, Sass, Bootstrap, React.js | Node.js, PHP, Flask | MySQL

Development: Linux, Git, Github

EDUCATION

Master double degree in Artificial Intelligence and Industrial Automation
University of Udine | Alpen-Adria-Universität Klagenfurt · 2022

Bachelor of Science in Multimedia Sciences and Technologies
University of Udine · Udine, Italy · 2020 · 110 Cum Laude

High School Diploma
Liceo Scientifico Bruno Touschek · Grottaferrata, RM · 2015

EXPERIENCE

Web content creator, Project Manager and Co-host
Prophecy Tech by NextHardware   May 2017 - June 2018, Rome
· Branded Content, Videomaking, Graphic Design, PR, Customer Care.
· Cooperated with top tech brands: (Intel, Razer, Gigabyte, Corsair) and covered some of the most important tech events, such as Computex in Taipei.

Reporter – Videomaker Freelance
Ansa.it   September 2016 - May 2017, Rome
· Technology news and video production.
· Media coverage of Mobile World Congress 2017 in Barcelona.