

Andrea Apicella

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SUMMARY

Master degree student of Artificial Intelligence and Industrial Automation at the University of Udine.
Researcher in the field of Fall Detection. 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 technological 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

Web Development: Javascript, HTML5, CSS3, Sass, Bootstrap, Node.js, PHP, SQL.

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

Development: Linux, Git, Github.

EDUCATION

Bachelor of Science in Multimedia Sciences and Technologies

University of Udine • Udine, Italy • 2020 • 110 Cum Laude

High School Diploma

Liceo Scientifico Bruno Tuschek • Grottaferrata, RM • 2015

EXPERIENCE

Web content creator, Project Manager and Co-host

Prophesy Tech by NextHardware

May 2017 - June 2018, Rome

- Branded Content, Videomaking, Graphic Design, PR, Customer Care.
- Cooperated with top brands (Intel, Razer, Gigabyte, Corsair) and covered some of the most important tech events, such as Computex 2019 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.