

Bursa Technical University

Mathematics Department

Erasmus+ Staff Mobility

Seminar: 29th march 2023

12:00 – 13:00

Title: On the Shoulders of Digital Giants, State-of-the-Art Computer Vision models by Leveraging Transfer Learning for ML/AI research.

Summary: Machine Learning and Artificial Intelligence has been a very hot research and development topic over the last 10 years. Both Computer Vision and Natural Language Processing have seen significant advancements in recent years, Computer Vision has more mature and established products, while Natural Language Processing products aiming at widely adoption are still in the early stages of development. Well-known Computer Vision products like smart surveillance cameras with the ability to detect and track objects in real-time are widely used for some years now. Regarding Natural Language Processing, the first product aiming general adoption has just been released, the so-called ChatGPT. In both Computer Vision and Natural Language Processing, though some important advances are coming from academia, the state-of-the-art models have been developed by big companies. Many Computer Vision research papers were published alongside models' architecture and optimal weights. This allows other researchers to conduct Transfer Learning, a technique that uses a state-of-the-art pre-trained model as a starting point. In this talk, transfer learning will be introduced using a Computer Vision model for image classification and some research examples will be discussed.

Short CV: Nuno Lavado is Adjunct Professor at the Dep. of Physics and Mathematics, Polytechnic University of Coimbra - ISEC (Coimbra Institute of Engineering), Portugal. He has been an Associate at The Nielsen Company, based in Oxford, UK, covering the Nordic Countries as a Data Science Business Leader. He holds a PhD in Quantitative Methods, Statistics and Data Analysis by the ISCTE-IUL Business School, Portugal, where he collaborated as an Integrated Research Member. His background also includes a degree in Mathematics and a MSc degree in Statistics and Information Management.

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