**PhD Researcher in Multimodal Fake Media Detection**

The rise of fake news has brought with it many different modalities of misinformation. Images can be falsified or taken out of context, videos can be edited to be misleading and deep-fake video can make and portray events that have never happened. The complexity of this manipulated or generated content requires new fake media detection methods that can combine different modalities (e.g., image and text, video and audio) and can aggregate supporting evidence from multiple sources (e.g., news websites, fact-checking websites, social media).

This **fully funded PhD position** will design novel deep-learning models to detect fake media from multimodal content (images/video and text/audio). The research will also investigate (graph) deep learning models for multidomain and multilingual automated fact-checking, which can reason on the veracity of content using evidence from multiple sources. The research will also focus on innovative post-hoc interpretation and explanation algorithms that analyze the behavior of the (multimodal) deep learning models.

The position is available within [the team of Prof. Nikos Deligiannis](https://www.etrovub.be/people/member/about-bio/ndeligia/) at the Department of Electronics and Informatics (www.etrovub.be) at **Vrije Universiteit Brussel, Belgium**, which specializes in interpretable and explainable machine learning, signal processing, and federated learning for computer vision and data processing. The team is affiliated with imec, an international R&D and innovation hub in nanoelectronics and digital technologies (www.imec-int.com/).

Responsibilities:

* Design and implement innovative models and algorithms within the aforementioned research,
* Publish at top-tier journals and conferences in computer vision (e.g., CVPR, ICCV, ICIP, TIP, PAMI) and machine learning (e.g., AAAI, TNNLS, TSP);
* Prepare a doctoral dissertation and support in teaching.

Profile and requirements:

* An MSc degree focusing on computer science, electrical engineering, mathematics or related field;
* Prior experience with natural language processing, image processing and/or computer vision is considered as a strong asset;
* An excellent academic record;
* Proven programming experience (e.g., Python, C++);
* Prior experience with state-of-the-art machine learning frameworks (e.g., Tensorflow, PyTorch) is a plus;
* Excellent oral and written communication skills in English (experience in publishing at international conferences/journals is a plus).

What we offer:

* A fully funded PhD position;
* A competitive salary and benefits,
* An international scientific environment driven by excellence in research,
* Opportunities for travelling to conferences and research visits to international partner research groups.

Interested candidates can send via email: (i) a detailed curriculum vitae; (ii) a motivation letter related to the position’s profile; (iii) academic transcripts (undergraduate and graduate), and (iv) the names of two potential referees by **May 27, 2024** to the following contact person:

**Prof. Dr. Nikos Deligiannis**

Vrije Universiteit Brussel – imec

Pleinlaan 2, Brussels 1050, Belgium

https://www.etrovub.be/people/member/about-bio/ndeligia/

Tel.: +32 2 629 1683

Email: ndeligia@etrovub.be