

Victor Delvigne

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EDUCATION

Joint PhD Student in Biomedical Signal Processing and Deep Learning Mons, BE - Lille, FR | now

FACULTY OF ENGINEERING, UMONS, BE - IMT NORD-EUROPE, CRISTAL, FR

Eye-Tracking and Electroencephalography use to study attention in Virtual Reality Environments. The goal of the PhD is to consider the use of novel technology (e.g. Artificial Intelligence, Deep-Learning and virtual reality) to design applications aiming to improve people engagement and help people with ADHD to self-regulate their symptoms.

MSC. Electrical Engineering with Signal, System and Bioengineering Spec.

Mons, BE | Jun 2019

FACULTY OF ENGINEERING, UNIVERSITY OF MONS

Magna Cum Laude

BSc. Engineering Sciences - Major in Electricity

Mons, BE | Jun 2017

FACULTY OF ENGINEERING, UNIVERSITY OF MONS

Cum Laude

WORK EXPERIENCE

RESEARCH ASSISTANT | UMONS/IMT NORD-EUROPE

Mons, BE - Lille, FR | Jun 2019 – now

- Design of a video-game prototype evolving with attention state.
- Development of Deep-Learning based software for attention estimation from EEG signals.
- Creation of a benchmark promoting attention in virtual reality and the corresponding dataset composed of the recorded physiological signals during the processing of the task.
- Study of the effect of attention on biomedical signals.

VISITING RESEARCHER | CRCV - UNIVERSITY OF CENTRAL FLORIDA Orlando, FL | Oct 2021 - Dec 2021

Research project aiming to investigate Self-Supervised Learning (SSL) methods for EEG signals processing.

RESEARCH STUDENT (ERASMUS) | EPFL

Lausanne, CH | Jan 2019 - Jun 2019

Research project aiming to estimate brain white matter properties from Machine Learning and Diffusion Simulation. Results publication at CDMRI workshop - MICCAI 2019.

VISION ENGINEER INTERN | ACIC S.A.

Mons, BE | Jun 2018 – Aug 2018

Improvement of a real-time human tracker on pan tilt zoom cameras considering a low consumption approach.

STUDENT JOBS |

Mons, BE | 2010 – 2017

Several summer and part-time jobs: teaching assistant (University and High-School level), gardening, painting, archive storage.

SKILLS

Languages: French (native), English (advanced - TOEFL C1), Dutch (basic)

Software & Programming: Python, Pytorch, Tensorflow, C++, C, C# (Unity), Matlab

Soft Skills: Organization, Communication (oral and writing), Teamwork

PUBLICATIONS

- Delvigne V. et al., "*Where Is My Mind (looking at)? Predicting Visual Attention from Brain Activity*". MDPI Informatics (2022 - under review).
- Delvigne V. et al., "*Emotion Estimation from EEG - A Dual Deep Learning Approach Combined with Saliency*". (2022 - under review).
- Delvigne V. et al., "*PhyDAA: Physiological Dataset Assessing Attention*". IEEE Transaction on Circuits Systems for Video Technology (2021).
- Delvigne V. et al., "*Attention Estimation in Virtual Reality with EEG based Image Regression*". IEEE International Conference on Artificial Intelligence and Virtual Reality (2020).
- Delvigne V. et al., "*VERA: Virtual Environments Recording Attention*". IEEE International Conference on Serious Games and Applications for Health (2020). **Best Paper Award**
- Other preprints and publications available.

AREA OF INTEREST

Sport: Indoor Climbing (10 years), Trails, Kitesurf

Associative: Active member of student organization as treasurer and president

Other: Volunteering, Coding contest, travels, reading