Wolf De Wulf

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Education

Doctor of Philosophy (PhD) 2023 - ... Computational Neuroscience University of Edinburgh, United Kingdom Master of Science by Research (MScR) 2022 - 2023Biomedical AI (Distinction) University of Edinburgh, United Kingdom Master of Science (MSc) 2020 - 2022Applied Sciences and Engineering: Computer science (93%) Vrije Universiteit Brussel, Belgium 2017 - 2020Bachelor of Science (BSc) Computer science (84%) Vrije Universiteit Brussel, Belgium Experience Summer 2024 NeuroAl Intern Predictive Processing in the Olfactory Cortex, Albeanu Lab Cold Spring Harbor Laboratory, USA Autumn School October 2023 Computational Neuroscience & NeuroAl Ulster University, United Kingdom MScR Thesis Transformer-Based EMG Decoding for Control of Prosthetic Fingers University of Edinburgh, United Kingdom **MSc Thesis** 2022 Transfer learning in BCIs: Pretrained Transformers for Classifying EEG Vrije Universiteit Brussel, Belgium Machine Learning Engineer (contact: Prof. Johan Loeckx) August 2021 Developed an ML app to match patients with psychologists. Vrije Universiteit Brussel, Belgium **BSc Thesis** 2020 LP2PB: Translating Answer Set Programs into Pseudo-Boolean Theories Vrije Universiteit Brussel, Belgium Summer School August 2018 Information & Communication Technologies Xidian University, China Teaching **Tutor & Marker** 2023.2024 Machine Learning & Pattern Recognition University of Edinburgh Awards Vrije Universiteit Brussel Prize of Science 2022 2022 **BrEA Student Engineering Prize** Skills

Languages: Dutch (Native), English (C1), French (C1)

Programming: Python (Pytorch, JAX), R, C++, C, Java, Scala, Prolog, Lisp

Machine Learning: Transformers (<u>MSc thesis</u>, <u>MScR thesis</u>), Reinforcement Learning (<u>chess project</u>) **Computation**: Virtual Envs (Docker, Anaconda), High Performance Computing (Slurm, Kubernetes)

Publications

- Aryo Pradipta Gema, Dominik Grabarczyk, **Wolf De Wulf**, Piyush Borole, Javie Alfaro, Antonio, Pasquale Minervini, Antonio Vergari, and Ajitha Rajan (2024). "Knowledge Graph Embeddings in the Biomedical Domain: Are They Useful? A Look at Link Prediction, Rule Learning, and Downstream Polypharmacy Tasks". In: *Bioinformatics Advances*.
- Polina Turishcheva, Paul G. Fahey, Michaela Vystrčilová, Laura Hansel, Rachel Froebe, Kayla Ponder, Yongrong Qiu, Konstantin F. Willeke, Mohammad Bashiri, Ruslan Baikulov, Yu Zhu, Lei Ma, Shan Yu, Tiejun Huang, Bryan M. Li, **Wolf De Wulf**, Nina Kudryashova, Matthias H. Hennig, Nathalie L. Rochefort, Arno Onken, Eric Wang, Zhiwei Ding, Andreas S. Tolias, Fabian H. Sinz, and Alexander S Ecker (2024). "Retrospective for the Dynamic Sensorium Competition for predicting large-scale mouse primary visual cortex activity from videos". In: *arXiv*, *accepted at NeurIPS2024*.
- Dieter Vandesande, **Wolf De Wulf**, and Bart Bogaerts (2022). "QMaxSATpb: A Certified MaxSAT Solver". In: *Proceedings 16th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR)*. Lecture Notes in Computer Science. Springer.
- **Wolf De Wulf** and Bart Bogaerts (2020). "LP2PB: Translating Answer Set Programs into Pseudo-Boolean Theories". In: *Proceedings 36th International Conference on Logic Programming (ICLP)*.